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Original Articles.

LABORATORY AIDS IN CLINICAL DIAGNOSIS.

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A diagnosis may be anatomic, clinical or etiologic. By anatomic diagnosis is meant a description of the tissue changes that have taken place in the body as a result of disease, based on a study of the dead body. By clinical diagnosis is meant an opinion as to the nature, cause, probable course and termination of a pathologic process, based on a study of the living body. By etiologic diagnosis is meant the identification of the specific cause of a given pathologic process in an individual case. To illustrate: By means of the physical signs and a study of symptoms, the physician establishes the clinical diagnosis of lobar pneumonia. The exudate from the lungs is examined and the pneumococcus and staphylococcus are found, which establishes the etiologic diagnosis.

The patient dies, and at necropsy a study of the gross and microscopic changes in the lungs is made, which comprises the anatomic diagnosis. The anatomic and etiologic diagnoses are exact and definite. The clinical diagnosis should be as exact as the available means can make it.

It is obvious that an exact knowledge of the anatomic changes and the causative agencies is of great importance, because of its influence on therapeutics. A diphtheritic process due to the streptococcus can not be expected to yield to a Klebs-Loeffler bacillus antitoxin. Antistreptococcus serum can not and will not modify a septic process due to the colon bacillus or staphylococcus. Before we heroically assail our patient or perhaps our victim with enormous doses of quinin, it is well to be positive of the existence of his malaria.

The trend of medical research is along the line of pathology, and rightly so. The clinician, however, has followed closely in the wake of the pathologist, and as he establishes definite causative agents, anatomic peculiarities or physiologic variations in certain diseases, the clinician has eagerly seized on his methods whenever he could make them available for use on the living patient. The pathologist, Koch, demonstrated the tubercle bacillus to be the cause of tuberculosis. The clinician hunts assiduously for that bacterium in the sputum to establish definitely his diagnosis of phthisis. The curious phenomena of the cytolytic and agglutinative action of different sera on the specific bacteria, to whose activity they have become relatively immune, was no sooner announced than the law was applied to the diagnosis of typhoid fever as the familiar Widal reaction. The pathologist noticed that in certain diseases a large increase in the circulating leucocytes occurred. The clinician found the estimation of the degree of leucocytosis to be a most valuable means of differential diagnosis and of considerable prognostic import.

In this way the researches of workers in the laboratory and the dead house have not only increased and made more exact our understanding of the diseases we are called on to combat, but they have incidentally greatly facilitated their recognition and made it more often possible for the diagnosis to be an exact one. It is not needful to emphasize the importance of care and exactness in diagnosis. The lay mind as well as the medical is fully alive to its fundamental value.

We have said that the trend of modern workers is along the lines of pathology and diagnosis, and on the surface it would seem that therapeutics is being forgotten. It is a fact that we are, to a considerable extent at least, abandoning our store of empiric drug therapeutics and are losing faith in many of our vaunted pharmaceutic specifics. One familiar with the structure of the calculi abnormally found in the biliary or urinary bladder, looks with skeptical eyes on the phosphates, olive oil, oleic acid, lithia, etc., that are offered him as potent solvents. The surgeon familiar with the dense structure of a uterine fibroid has rightly doubted the adequacy of ergot to cause its atrophy.

When the assertion is made that by a certain favorite intestinal antiseptic, a physician has been able to abort the disease or to shorten its duration in his typhoid cases, we must confess a doubt that his minute doses of calomel, carbolic acid, etc., are potent to exert an appreciable influence over twenty feet of intestine and the entire blood stream. In 80 per cent. of cases it is possible to isolate the typhoid bacillus from the blood, and typhoid is more often a general typhoidal bacteriemia than an intestinal disorder.

We should not become drug nihilists or approve of the do-nothing policy which so many disappointed drug users have adopted, but certainly greater care is needed in ascribing to drugs good effects that are due either to the effect of a careful hygiene or to other agencies, always remembering Nature's kindly aid and not failing to give her full credit at all times. However, the pathologist has not undermined our symptomatic drug therapeutics without giving us full compensation.

As we were formerly inexact in our understanding of pathology, we could not be otherwise than inexact in

treatment. With exactness in our knowledge of pathology and with the possibility of exact diagnosis on the living patient, has come the vanguard of the era of precise and specific therapeutics. Antitoxin, anti-streptococcic serum, antitetanic serum and vaccination immunity are beyond the stages of experiment in their effects, and their failures are largely to be attributed to inaccuracy in their use.

With the advent of specific therapeutics—with its promise of a brilliant future—comes a still greater need for exactness in our clinical diagnosis. The ideal clinical diagnosis should reveal all the information that the etiologic and anatomic diagnosis comprises. The laboratory has brought many means of precision to the clinician, and we will briefly note some of the more important ones.

In typhoid fever, malarial infections, many forms of tuberculosis, gonorrheal inflammations, cerebrospinal-meningitis, pneumonia, septicemia, chlorosis, severe secondary anemias, actinomycosis, amebic dysentery, different forms of intestinal parasitic infections, intestinal, uterine and gastric cancer, true diabetes, certain forms of endometritis, anthrax, echinococcus infections, filariasis and some other conditions, the laboratory frequently affords the means of an exact diagnosis. In many of these diseases, diagnosis is impossible without laboratory aid, and in all of them it offers final and definite testimony. In many more conditions laboratory investigations offer to the physician valuable information, additional to that he has already gained, and is most helpful in differential diagnosis.

As diagnostic aids in typhoid fever, we have the Widal reaction, and more recently the bacteriologic examination of the blood. Cabot reports positive Widal reactions in 95 per cent. of 3,000 cases of clinical typhoid, and of 2,500 control cases only 2 per cent. reacted. In a case difficult of diagnosis, a positive reaction is, therefore, almost a positive evidence of typhoidal infection. Most important, however, is the bacteriologic examination of the blood. Eberth's bacilli can be found in from 80 to 90 per cent. of the cases. They are most frequently found from the second to the fifth day of the disease. The technic is not difficult, but demands great care. Bacteriologic examination of the blood affords an exact diagnosis at an early date. As negative evidence, it is not as yet to be relied on. The skin of the forearm is sterilized, a vein rendered prominent, and by means of a sterile aspirator needle, blood is withdrawn and inoculated into a tube of blood serum or agar, and after from twenty-four to forty-eight hours in an incubator, the bacillus is identified by its morphologic and cultural peculiarities. The use of plate cultures is to be recommended as an aid in the identification of the colonies and as an additional safeguard against contamination of the cultures.

Malaria has long been a scapegoat for certain members of the profession. The diagnosis of a "touch of malaria" has often taken the place of an explanation of a patient's real or fancied illness. Malaria is a parasitic disease of the blood, and to establish its diagnosis it is needful to identify the parasite in the blood. A careful search will almost always reveal its presence. A negative finding, after a careful search, is of considerable negative value.

In pulmonary tuberculosis, the finding of the tubercle bacillus in the sputum is of the greatest diagnostic import, and their constant absence, after many examinations, is of considerable negative value, though not a final test. The presence of elastic fibers speaks positively for disintegration of lung tissue. In tuberculosis of the bladder or kidneys, the diagnosis is often cleared up by finding the bacilli in the urine, though here a negative finding is of no value whatever. Inoculation of a susceptible animal and a subsequent study of the experimental disease may be of great value where more direct methods have failed to reveal the nature of the infection.

It is possible to differentiate a gonorrheal from a pus microbe inflammation by examination of a smear preparation of the exudate, though here a negative result is of small value, except during the early stage of the disease.

In cerebrospinal meningitis an examination of the exudate obtained by lumbar puncture may reveal whether the symptom complex is due to the tubercle bacillus, pneumococcus or *Diplococcus intracellularis meningitides*. A pneumococcus meningitis is always fatal. A tubercular meningitis is uniformly fatal. The epidemic form due to the *Diplococcus intracellularis* may recover. The value of these findings is obvious.

In lobar pneumonia the pneumococcus is easily demonstrated in the sputum. It can, however, be found in 20 per cent. of normal individuals, which lessens the value of the finding.

In ulcerative endocarditis and septicemia, a bacteriologic examination of the blood may often reveal the identity of the infecting agent which may give a hint in treatment or at least serve to clear up a cloudy diagnosis.

A granule from a submaxillary abscess crushed under a cover glass may show the presence of the ray fungus and establish the diagnosis of an actinomycotic infection.

By examination of the stomach contents, definite data can be obtained as to the presence or absence of hydrochloric acid, pepsin, rennen, lactic or other organic acids, and when present the percentages may be determined. The rapidity of digestion may be estimated, and tumor particles, pus, blood, bacteria, etc., detected if present.

By examination of the stools, the *Ameba coli* may be found in amebic dysentery, tumor particles in intestinal cancer, pus, blood, and perhaps the tubercle bacillus in ulcerative processes in the bowel.

The specific gravity, reaction, albumin and sugar determinations are but the rudiments of urinalysis. The microscope is essential for a proper study of the urine. A careful study of the epithelia, different varieties of casts, and noting the presence or absence of bacteria, pus, and blood is absolutely essential in order to obtain anything like a definite idea as to the condition of the urinary apparatus. Even then it must be confessed that it is at all times difficult and often impossible to determine by urinalysis the anatomic changes in the kidneys with which the clinician will be confronted at the autopsy. Is there pus or blood present? If present, is it from the bladder or kidney? Is the renal parenchyma affected? Is the process tubercular or due to the colon bacillus or pus cocci? These are some of the questions that a proper study of the urine will answer, often with exactness.

During the last five or six years much attention has been given to the examination of the blood, and no field of medical research is more promising for investigation. Much has already been done, but much more still remains to be done. There are many reasons why the examination of the blood is of great interest to the clinician. First, it is the only tissue of the body that is at

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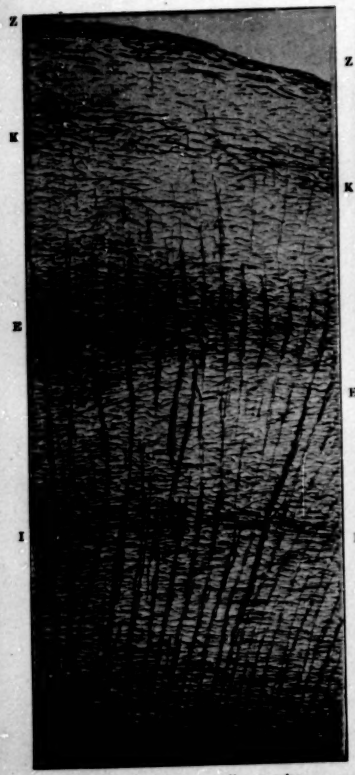

Fig. 7.—Gyrus temporalis superior.

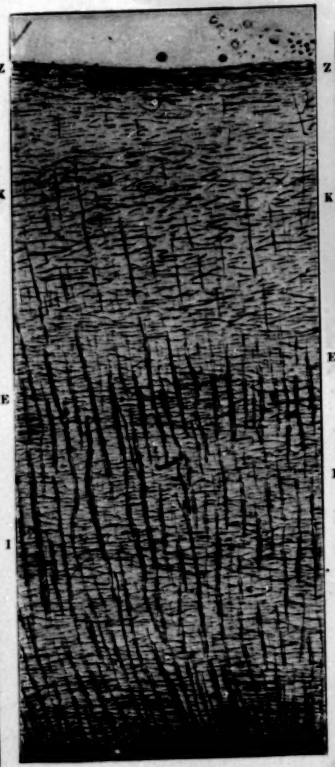

Fig. 8.—Gyrus orbitalis.

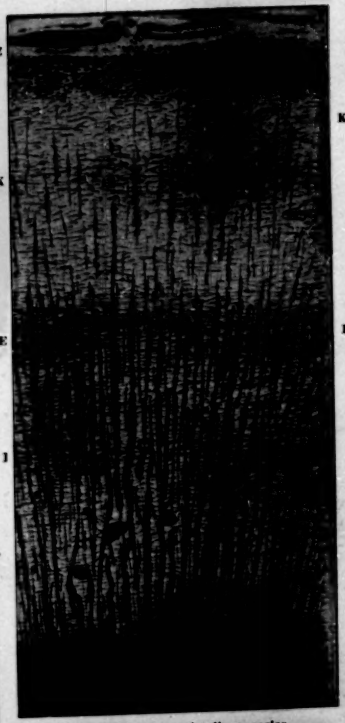

Fig. 9.—Gyrus parietalis superior.

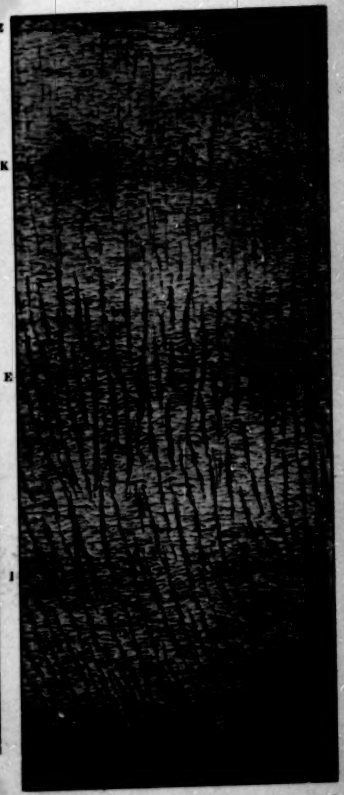

Fig. 10.—Gyrus temporalis inferior, from a normal man, aged 50.

Figs. 7 to 10 are drawn with the use of Leitz Oc. 4 obj. 2. The letters indicate fibers in each of the four drawings as follows: Z, Zonal; K, Knee and Bechterew; E, Baillarger (external). I, Baillarger (internal).

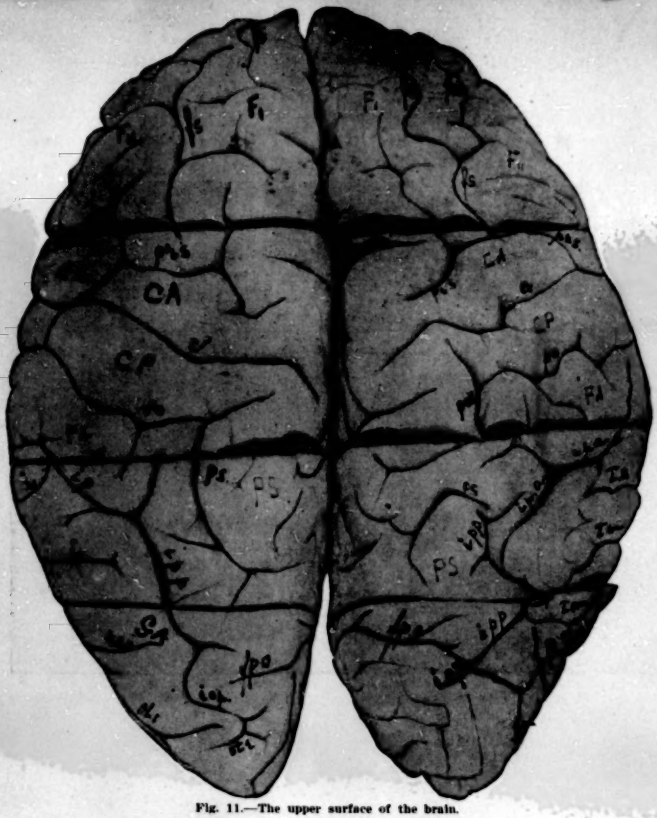

Fig. 11.—The upper surface of the brain.

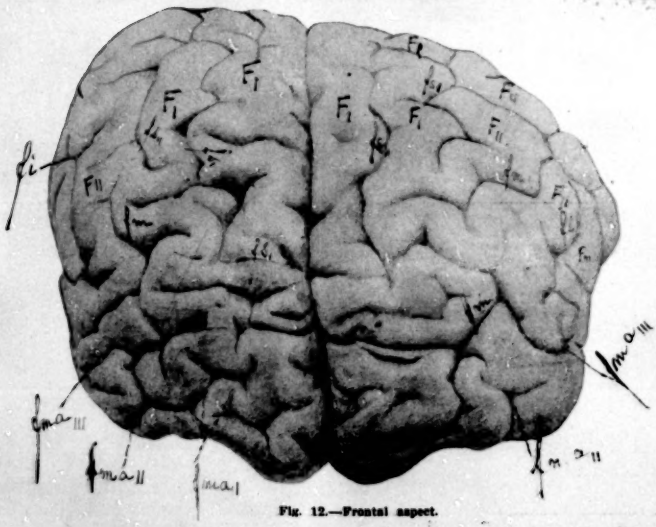

Fig. 12.—Frontal aspect.

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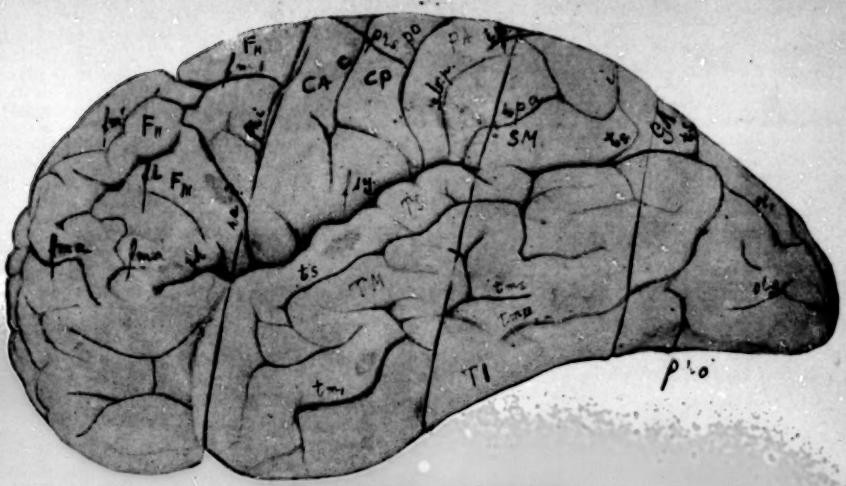

Fig. 13.—The outer surface of the left hemisphere.

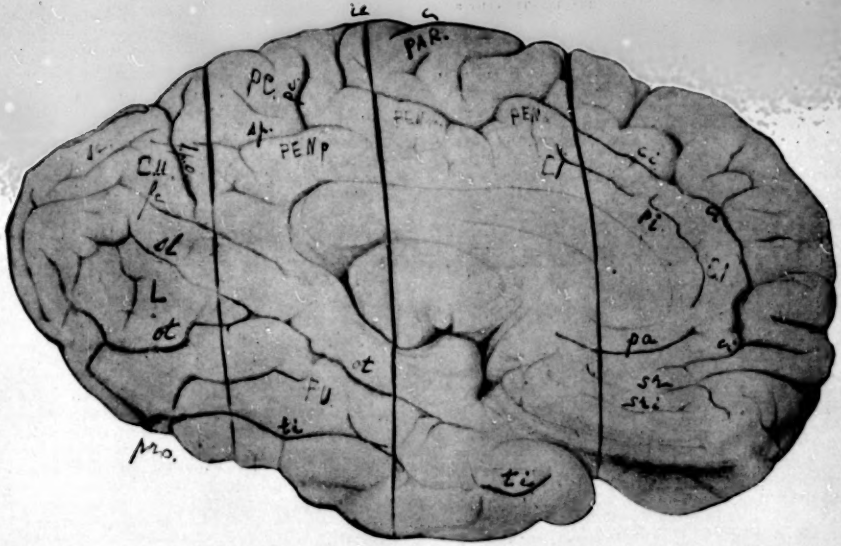

Fig. 14.—The mesian surface of left hemisphere.

EXPLANATION TO FIGURES 11 TO 16.

c—Sulcus centralis.
c i—Sulc. cinguli.
d—Sulc. diagonalis.
f c—Fissura calcarina.
f i—Sulc. frontalis inferior.
f m—Sulc. front. med.
f m a_1 f m a_{II} f m a_{III}—Pars anterior, pars media, pars lateral. of sulc. fronto-marginalis.
f p o—Fissura parieto occipitalis.
f s y—Fiss. Sylvii.
i—Sulc. intermedius.
i c—Incisura sulci cinguli.
i o p—Sulc. interoccipitalis.
i p—Sulc. interparietalis.
i p a—Anterior portion of sulc. interparietalis.
i p p—Posterior portion of sulc. interparietalis.
o l_1 o l_2 o l_3—Sulc. occipitalis lateralis sup., medius, and inferior.
o t—Sulc. occipito-temporalis.
o t r—Sulc. occipitalis transversus.
p a, p i—pars anterior and pars intermedia of sulcus cinguli.
p c—Sulc. praecunei.
p o—Sulc. postcentralis (retrocentralis).
p o s—Pars superior of sulc. postcentralis.
p r i—Sulc. praecentralis inf.
p r m—Sulc. praecentralis medialis.
p r o—Incisura praeoccipitalis.
p r s—Sulc. praecentralis superior.
p s—Sulc. parietalis superior.

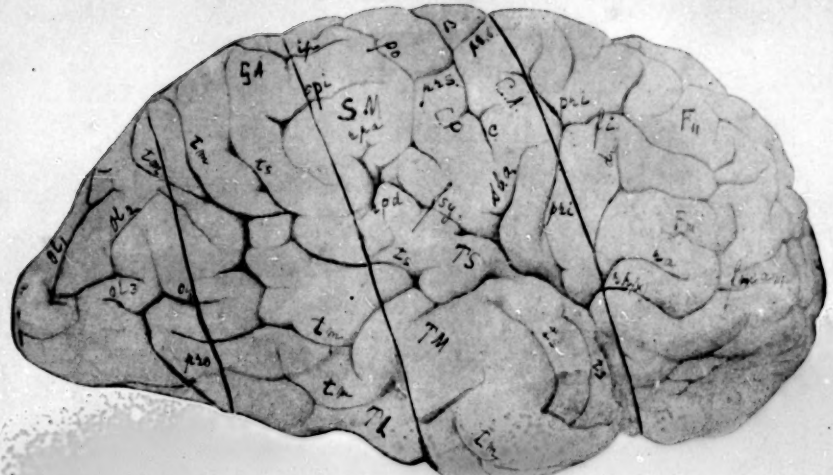

Fig. 15.—The outer surface of the right hemisphere.

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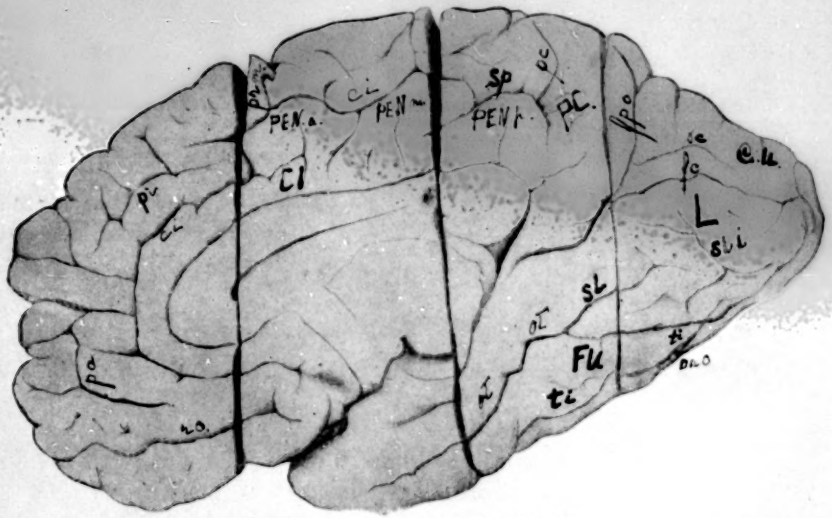

Fig. 16.—The mesian surface of the right hemisphere.

EXPLANATION OF FIGURES 11 TO 16.—CONTINUED.

r a—Ramus anter. ascendens fiss. Sylv.
r p—Ramus anter. horizontal fiss. Sylv.
r o—Sulc. rostralis.
r o l—Sulc. rostralis infer.
r p a—Ramus posterior ascendens fiss. Sylv.
r p d—Ramus posterior descend. fiss. Sylv.
s c—Sulc. cunei.
s b a—Sulc. subcentralis ant.
s b p—Sulc. subcentralis post.
s l, s l—Sulc. lingualis.
s p—Sulc. subparietalis.
s p l—Sulc. lobuli parietalis inf.
t l—Sulc. temporalis inf.
t m—Sulc. temporalis med.
t s—Sulc. temporalis sup.
C A—Gyrus centralis ant.
C l—Gyrus cinguli.
C P—Gyrus centralis post.
C U—Cuneus.
F1, F12, F13—Gyrus frontalis sup., med. and inf.
F U—Gyrus fusiformis.
G A—Gyrus angularis.
L—Gyrus lingualis.
P A—Gyrus parietalis ascenden.
P A R—Lobulus paracentralis.
P E N a, P E N m, P E N p—Pentagon anterior, med. and post.
P C—Præcuneus.
P S—Gyrus parietalis sup.
S M—Gyrus supra marginalis.
T l—Gyrus temporalis inf.
T M—Gyrus temporalis med.
T S—Gyrus temporalis sup.

all times readily available for study in the living patient. Second, from its physiologic position in the body, it must of necessity reflect in some way every variation from the normal that may take place in the organism, whether it be a general or a local variation. It is plain of what vast value it would be if we possessed definite information as to what these changes are and under what circumstances they occur. Thus far our studies of the blood have been chiefly in morphology. It is to the chemistry of the blood that we must look for the greatest aids in diagnosis in the future, but at the present, blood chemistry is practically an unexplored field. In five or six diseases, a diagnosis rests entirely on the blood examination. In every febrile disease, an examination of the blood will offer some light. In malaria, leukemia, filariasis, pernicious anemia, relapsing fever and chlorosis, exact diagnosis is impossible without a blood examination. However, the most generally valuable finding is the presence and extent of any leucocytosis. Every febrile process has a leucocytosis, with the following important exceptions: Malaria, typhoid fever, pure tubercular infections, measles, and the early stages of la grippe.

Leucocytosis is most pronounced in lobar pneumonia and suppurative diseases. Its presence or absence in a given case is of great diagnostic aid in placing a febrile disease in or out of the above list. A diagnosis of anemia should be based on the estimation of the percentage of hemoglobin and the number of red cells present. Any other method allows of a wide range of error.

We have endeavored to briefly outline a few of the more important aids in diagnosis afforded by the laboratory. No effort has been made to detail technic, as our space is too limited. In spite of the generally recognized great value of technical diagnostic aids, they are not employed by the average practitioner, and to any extent by very few indeed outside of the larger hospitals. Several factors go to account for this: First, to equip a laboratory requires considerable expense; second, many physicians have not the technical training and lack the time to acquire it; third, some because of a lack of diversity in their available material, do not have an opportunity to become proficient. In other words, the average physician is too busy, thinks it won't pay or lacks the taste or opportunity to become skilled in technic.

The solution of the problem lies in co-operation. With an expenditure of $10 and an arrangement with a laboratory within twenty-four hours' ride, any physician can have laboratory advantages at his disposal. All that is needed is a few glass slides, some culture tubes, platinum needle, alcohol lamp, Thoma-Zeiss white cell pipette, Tallqvist hemoglobinometer and a book on technic to obtain and forward material for a leucocyte count, hemoglobin estimation, bacteriologic examination of blood, urine, exudate or whatever else may be desired. One member of the community of physicians can go to the expense of fitting a laboratory and becoming proficient in technic. His neighbors can either share the expense and go there to make their examinations, or what is better perhaps for both, have one who has the time and taste, do the work for all. Practice makes perfect, and better observations would be secured by such a plan. A mutual agreement should be made as to the sharing of expense, and by a very small personal outlay a town possessing a faculty of only six or more physicians could have a sufficiently well-equipped laboratory and afford enough work to enable one or more of their number to become reasonably expert. We have not the time to elaborate this plan, but simply wish to state how, by means of harmony and mutual aid, it would be possible to bring the means of diagnostic precision within the reach of practically all the profession.

In many of the larger cities municipal laboratories have been established and have done much good work, especially in dealing with the epidemic and contagious diseases. Being municipal laboratories only, they reach but a small proportion of the profession. It is not unlikely, in view of the good work done by the city laboratories, that the state will eventually place at the disposal of the general profession an adequate number of well-equipped laboratories that would not only offer technical aid in general diagnosis, but would require that their services be employed in all cases that might have a bearing on the health of the general public. It must of necessity be some time before any generally efficient state aid can be expected, and meanwhile the profession must rely on their own efforts to obtain laboratory aid in diagnosis.

A CASE OF CIRCULAR INSANITY STUDIED FROM CLINICAL, DIFFERENTIAL AND FORENSIC STANDPOINTS.*

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WITH GROSS AND MICROSCOPIC ANATOMY OF BRAIN (FROM THE PATHOLOGICAL DEPARTMENT OF THE UNIVERSITY OF CHICAGO), BY THEO. BOTHETHEIN, M.D., CHICAGO.

(*Concluded from p. 1133.*)

FIFTH MANIC-DEPRESSIVE CYCLE.

In October, 1895, a petition *de lunatico* was again filed, and at the hearing it was testified that he had shown an immoral photograph to a young girl of twelve. This hearing was interrupted by a scuffle and altercation in court between X. and a witness, and by his calling the judge a "cheap skate." He was committed to jail for contempt. Immediately after he made three applications for a habeas corpus before as many judges, two of which were denied. He was released on the third and immediately rearrested, and when later the hearing on the question of insanity came up before a jury, the latter brought in a verdict of sanity, and he was never declared insane or committed to an institution for the insane again; not because he did not continue to exhibit an unbalanced mind, but apparently because all attempts to control him were given up in despair. From this date I have no detailed knowledge of the periods or phases of exaltation and depression. They continued to recur in an irregular manner. X. had in September, 1893, been restored to his property rights and his conservator had been removed by the probate court. His property was at that time estimated to amount to $45,000, and was eventually dissipated by him so that at his death, seven or eight years later, I understand little or nothing was left.

In November, 1898, he was arraigned before a justice on charge of assault with deadly weapon, could not secure bail and was sent to jail. Later he appeared in circuit court, poured a pitcher of ice water over his head, rubbed it with a newspaper in lieu of towel, and then asked for a *certiorari* on the justice who had committed him.

In January, 1897, he started in the superior court 16 suits for personal damages aggregating $1,464,000. At

this time two of his children filed affidavits desiring to stay with their mother.

During the years from 1893 to 1898 much of the time he occupied his residence on one of the handsome boulevards. He would sit at his door and anyone passing by in the street was liable to be made the subject of some practical joke. He would array himself at times in kilts and in dress and conduct was absurd and eccentric in the extreme. Often nonsensical signs and notices were hung in his windows, and the interior of the house was a scene of disorder and confusion indescribable.

SURGICAL INTERFERENCE.

In 1898 he consulted me about an operation on his brain, stating that Dr. J. B. Murphy had agreed to operate if I would recommend it. His claim was that the injury to his head in 1889 was the cause of his insanity. I stated to him that I could not recommend the operation, because his insanity undoubtedly antedated the injury, because there were no focal symptoms, motor or sensory, pointing to any certain region of the brain as the seat of disease, nor were there local evidences of injury to the cranium sufficient to justify an operation. I informed him finally that a physician who had seen him immediately after the injury had informed me he presented no signs at the time of concussion or compression. X. stated that granting all that to be true, still he was determined to have the operation, if for no other reason than for its effect on the public. He felt he had lost to a great degree the confidence of the public, and, if he could announce that the disorder of the brain caused by the injury to the head had now been removed by operation, he would regain the standing he had lost and could again get back his formerly lucrative law practice. The operation of trephining was done in October, 1898, I learned from the newspapers. The particulars of the operation have not, so far as I know, been reported. Evidence is lacking, however, in the subsequent history of the case to show material change in the patient's condition either for better or worse. Before submitting to the operation X. made his will—a characteristic document, in which he directs that his funeral be held in the West Side High School, of which he considered himself the "father and partial designer." He names for honorary pallbearers several of the first citizens of Chicago, beginning with Mayor Harrison. Some of these men had been his friends in years gone by. He gave his cranium to one physician, the rest of his skeleton to another and his heart to a third. He directed that models should be made of his skull and given to the medical colleges of Chicago, also to about twenty physicians in New York and Chicago; also that a death mask should be made and cast in bronze and presented to his friends, etc. This will, though eccentric, seems inconsistent with the theory of paresis having existed nine years.

Fig. 4.—Deterioration. Obesity, aged about 40.

ASYLUM DELIVERIES.

In the fall of 1898 and the following winter and spring the patient spent some time in Elgin, Ill., led thither, as he stated, by an "affair of the heart." (He had previously been divorced.) During this time he came in contact with patients in the state hospital who claimed they were wrongully confined, and he secured the legal release of three such patients on habeas corpus; he also brought suit in three other cases and obtained the discharge of a girl from the State Home for Juvenile Offenders at Geneva. His "affair of the heart" did not run smoothly. A paragraph in the press in April, 1899, told of his engagement being severed at Moline, Ill. After he had lost sight of his fiancée for some time he sought her in three different states and spent "$86 in trying to trace her by telephone." He implored her to accept him at the police station in the presence of patrolmen and reporters. She remained obdurate and later returned his presents.

In November, 1900, X. secured the release from the Hospital for the Insane at Kankakee of an undoubtedly insane patient, and began suit against the authorities for $250,000 for illegal detention.

In February, 1901, the patient successfully defended a patient in an insanity inquest in Milwaukee. This patient, too, was palpably and undoubtedly insane.

In August, 1901, the death of X. occurred at the Cook County Hospital from typhoid fever. It was stated in the press at the time that an autopsy was held by Dr. E. P. Noel. The brain was placed in possession of Dr. Ludvig Hektoen, who gave it for examination to his associate in the laboratory of Rush Medical College, Dr. T. Rothstein, who will submit his findings at the close of this paper.

DIFFERENTIAL DIAGNOSIS.

From such knowledge as I had, I arrived at the diagnosis of circular insanity, and here offer a few words on the differential diagnosis.

In reviewing this case from the standpoint of diagnosis, it may be stated that circular insanity is unmistakably shown by the clinical history. Circular insanity is a psychosis, the essential characteristic of which is the occurrence of alternating periods of mental exaltation and depression, or manic-depressive cycles, with periods of lucidity or normal condition between. Some writers insist on a normal interval between each of the exalted

and depressed phases; some between the cycles only, and find one phase passing almost immediately into the other, but the classical *folie circulaire*, as first described by Falret and Baillarger (also called *folie a double forme* and cyclo-thymia), consisted of exaltation, depression and sanity in regular succession. The only question that can arise in diagnosis of this case is whether the various cycles were or could be merely phases associated with paresis, since that disease is sometimes marked with alternating or circular mental symptoms, and since the expansive or grandiose phase of X.'s psychosis was suggestive to many minds of paresis, general paralysis or paralytic dementia, as the disease is denominated by different writers, but which I will here call general paralysis.

It is, of course, possible to refine endlessly on the points of diagnosis and to emphasize the exceptions to almost any rule, but it can be truly said, if this case was one of circular insanity, it was a typical one, and if it was a case of general paralysis, it was non-typical in the extreme. The cases of general paralysis are few indeed in which complete manic-depressive cycles occur for three or four years with strict regularity to the number of four or five; in which mental power and brilliancy are retained with accurate memory for recent and remote events, dates, etc., with logical cogency; sharp and clear power of discernment and statement and of concentration of mind and sustained attention. It is of the very essence of general paralysis that a blurring, so to speak, of perceptions and conceptions is present, even in the early stages, and the will is weak, the expansive ideas or delusions in the exalted state are fatuous and inconsistent. In the depressive state, there is more confusion and stupidity and more tendency to hypochondria, less retardation, less anxiety and discomfort—all of which considerations speak for circular insanity in the case of X. The moral deterioration in his case and the change in disposition and increased irritability might be common to either condition.

If it be granted for the sake of argument that the mental symptoms shown by this case might possibly be present in a case either of general paralysis or circular insanity, we must then look to the somatic signs for settling the diagnosis, and here, again, I find, so far as my observation went, that in the case of X. the most characteristic symptoms of general paralysis was lacking—fibrillary tremors of facial muscles and tongue, speech defects, immobile pupils, implication of cranial nerves, convulsive, spasmodic or paralytic phenomena, heightened deep reflexes—all were lacking in my observation of the case of X. It may be that colleagues who examined X. at various later periods during the twelve years of his insanity saw some of these signs, but none of them were present when I examined him. Furthermore, evidence of syphilis was lacking, which is known to be present in 75 per cent. of paretics and claimed by many the invariable cause. Again, the fact of the patient living for twelve years and dying of intercurrent disease is unusual in general paralysis, though, of course, not impossible.

The symptoms speaking for general paralysis were the grandiose ideas, which, on closer view, are, in my opinion, not characteristic, the mental and moral deterioration, which are, however, common both to general paralysis and to circular insanity. The abnormity of diminished reflexes on the left side is of neutral significance. Finally, there have been cases of general paralysis with remissions, in which great brilliancy was shown, and with a duration of ten or more years and subsidence of the symptoms, but not, so far as I know, cases in which all the symptoms were consistent with a diagnosis of circular insanity. In view of Dr. Rothstein's examination, I will not speak further of the pathologic anatomy than to say the examination of the brain fails to furnish evidence of changes such as are required to establish general paralysis.

THE ANATOMIC FINDINGS.

BY DR. THOR ROTHSTEIN.

(University of Chicago.)

The patient died of typhoid fever at the Cook County Hospital in Chicago. From the autopsy, the brain, the part of dura covering the convexity of the brain and the middle part of the frontal bone were secured and preserved in formol and Müller's fluid. On the internal surface of the frontal bone are two groups of exostoses, one on each side of the middle line, at the point where the crista frontalis meets the sulcus frontalis. The exostoses on the left side consist of five eminences spread over a surface that is 4 cm. in length and 2.5 cm. in width. They protrude about 1-1.5 mm. The exostoses on the right side are confluent, protruding at one point 3 mm. and covering a surface 4 cm. in length and 0.5-2 cm. in width. Some parts of the dura adhere around the exostoses. The dura has the appearance as if it had been adherent to the skull, then the external layers were torn off from a considerable part of it, but the internal surface of the dura is perfectly smooth and of normal luster.

The brain, with cerebellum and medulla oblongata, weighs 1,720 gm. and hence is to be classed with the heavy brains. The pia is loosened from the brain over a small surface at the frontal pole of both hemispheres, but the underlying brain tissue is intact except that in the left hemisphere there is a horizontal cut 2-3 cm. long (made at the autopsy). There is a depression on the right hemisphere close to the fissura longitudinalis at the level of the brain corresponding to the situation of the exostoses. It is hardly noticeable on the left side, but a little more marked on the right hemisphere (Fig. 16, at the frontal pole), here measuring 1.5 cm. in height and about 0.25-0.50 cm. in depth.

The veins of the pia are distended with blood, especially over the convexity, but no thickening of the pia can be found and it is easily loosened, leaving the gyri perfectly smooth. The lateral ventricles are unusually narrow.

LEFT HEMISPHERE.

Fissura sylvii (f sy, Fig. 13) is 50 mm. long. The ramus anterior horizontalis (r h, Fig. 13) is short but deep. The sulcus designated as ra (Fig. 13) cuts down to the insula and thus must be considered as ramus ascendens anterior. It is unusually long and keeps its depth till it comes close to the sulcus frontalis medius, but the anastomosis with the last named sulcus is shallow, both sulci being separated by a deep gyrus. Fissura sylvii is bifurcated at the posterior end. The ramus posterior descendens is very short. The ramus posterior ascendens passes upward and backward, joining the sulcus intermedius (i, Fig. 13).

Sulcus centralis (c, Figs. 11 and 13)commences on the medial surface of the hemisphere and runs in a nearly straight direction forward and downward. Near its lower end it sends a branch backward and downward through gyrus centralis post. to the fissura sylvii.

The sulcus cinguli (ci, Fig. 14) runs as a continuous sulcus from the genu corporis callosi to the incisura cinguli (i c, Fig. 14). In its posterior part (pars posterior—Eberstaller) it is single, but a doubling of pars intermedia and pars anterior (Eberstaller) (p a and p i, Fig. 14) exists. Orbitally from the sulcus cinguli a sulcus rostralis (s r, Fig. 14) is seen, which reaches the edge of the hemisphere anteriorly. Below a short sulcus rostralis inferior (Retzius) (s r i, Fig. 14) exists.

The sulcus frontalis superior is represented by two furrows (f s, f s_{II}, Figs. 11 and 12). The posterior furrow (f s_{II}) sends

out several side branches. One passes vertically and anastomoses with sulc. frontal med. (f m, Fig. 12). The anterior furrow (f a_{II}) starts half-way between the posterior furrow and fissura longitudinalis and runs parallel to this fissure, but is far from reaching margo orbitalis.

The sulcus frontalis medius (Eberstaller) (f m_I f m_{III} Figs. 12 and 13) is the most prominent furrow on the frontal lobe. Its posterior portion (f m_I, Figs. 12 and 13) communicates with the sulcus præcentralis inferior (pr i, Fig. 13) and thus has replaced the sulcus frontal inferior. The anterior portion (f m_{III}, Fig. 12) sends out several side branches and ends at margo orbitalis in sulcus fronto marginalis (pars anterior—Eberstaller) (f m a, Fig. 12). Side branches from sulcus frontal med. form pars media and pars lateralis (Eberstaller) of sulcus fronto marginalis (f m a_{II} f m a_{III}, Fig. 12). Sulcus frontal inferior (f i, Fig. 13) is short and commences in front of ramus ascendens fissura sylvii (r a), from which it is separated only by a very narrow gyrus. After a short course forward it turns downward and ends in a short horizontal sulcus (f m a) a little in front of ramus horizontal fossa sylv.

Sulcus præcentralis inferior (pr i, Fig. 13) is short, with a nearly straight vertical course. It communicates with sulcus frontal medius and from its lower part sends a short horizontal branch in gyrus front inferior (F. III). Sulcus præcentralis superior (pr s, Figs. 11 and 13) is composed of two sagittal sulci united in their middle by a vertical sulcus. The lower sagittal sulcus passes backward to the sulcus centralis, then cuts through gyrus centralis posterior and finally joins sulcus postcentralis (p o, Figs. 11 and 13). In this way both the central gyri are divided into an inferior and a superior portion.

On the mesial surface the gyrus central anterior forms the greater part of lobulus paracentralis (P A R, Fig. 14). On the upper surface it takes an unusually straight course. Gyrus frontal superior (F_I, Fig. 12) is very narrow in its anterior portion. Gyrus frontalis medius (F_{II}) is the most prominent of the frontal gyri and is divided into one superior and one inferior gyrus.

Nearly all of gyrus frontal inferior (F_{III}, Fig. 13) is taken up by Broca's convolution (operculum intermedium—Retzius), which is of an unusually large size and has an incisure on its surface.

LOBUS PARIETALIS, LOBUS TEMPORALIS AND LOBUS OCCIPITALIS.

Sulcus postcentralis (retrocentralis) (p o, Fig. 11) exists as a well marked sulcus. Below it starts in the fissura sylvii and goes slightly curved in the form of a retroverted S upward and backward. Not far from its upper end it joins a semicircular sulcus (p s, Fig. 11) which, with its posterior end, descends on the mesial surface of the hemisphere. This sulcus may be considered a sulcus parietalis superior (Retzius).

Laterally from parietalis superior a strongly developed sulcus interparietalis (i p, Figs. 11 and 13) is found. Posteriorly it enters the occipital lobe as a sulcus interoccipitalis (i op, Fig. 12) and ends as sulcus occipitalis transversus (o t). Anteriorly sulcus interparietalis has a vertical position, which is parallel with sulcus postcentralis and ends long before it reaches fissura sylvii. From this last named fissure a sulcus subcentralis posterior (Retzius) (s c p, Fig. 13) ascends toward sulcus interparietalis, thus completing the posterior boundary of gyrus ascendens. On the mesial surface of lobus parietalis a free sulcus subparietalis (s p, Fig. 14) exists, which anastomoses with a vertical sulcus præcunei (p c, Fig. 14).

The sulcus intermedius (i, Figs. 11 and 13) starts anteriorly from sulcus interparietalis, goes backward and downward, communicating with ramus ascendens fissure sylvii and with sulcus temporalis superior and turns finally upward, ending near the sulcus interparietalis.

The sulcus temporalis superior (t s, Figs. 11 and 13) in its posterior part, sends out one upward branch (t s_a, Fig. 14), anastomosing with the sulcus intermedius. Further back it divides into two sulci, one (t s_a, Fig. 11) passing upward and ending near sulcus interparietalis; the other passes backward, joining the ascending part of the sulcus temp. medius.

The sulcus tem. medius is subdivided in three portions (t m_I t m_{II} t m_{III}, Fig. 13). The posterior portion anastomoses by a short, shallow sulcus with incisura preoccipitalis (pro, Fig. 13), thus forming a sulcus preoccipitalis (Wernicke), and communicates with sulcus temporalis superior and sulcus occipitalis lateralis superior.

The sulcus temporalis inferior (t i, Fig. 14) runs forward from incisura preoccipitalis and is represented by two separate sulci. A deep sagittal sulcus exists in gyrus fusiformis.

The sulcus occipito temporalis (fissura collateralis) (o t, Fig. 14) presents at its posterior end two transverse branches, the mesial of which reaches the occipital pole, the lateral ends in incisura preoccipitalis. At the point where it reaches the gyrus hippocampus it is joined by a sulcus lingualis (s l, Fig. 14).

Fissura parieto-occipitalis is typical, but anastomoses even deeply with fissura calcarina, which further on at the occipital pole, turns over on the lateral surface. Behind fissura parieto-occipitalis a sagittal sulcus cunaei extends (s c, Fig. 14) to the occipital pole.

On the lateral surface of the occipital lobe are found the sulcus occipitalis lateralis inferior (o l_I, Fig. 13) and the sulcus occipitalis lateralis superior (o l_{II}, Fig. 14), which anastomoses anteriorly with sulci temporalis superior and medius and sends one transverse branch which ends near sulcus interparietalis.

The gyrus centralis post (C P, Figs. 11 and 13) has a nearly straight course. It is very broad in its middle part and upward it passes into a short, thick gyrus parietalis superior medial is (p s, Fig. 11) (gyrus arcuatus ant.—Retz). A well-defined gyrus parietalis ascendens (P A, Fig. 11) that stretches backward to fissura parieto occipitalis is formed, giving the brain a three gyral type.

The gyrus supramarginalis (S M, Fig. 13) is divided by sulcus intermedius and not very well defined. Gyrus angularis (G A, Figs. 12 and 13) is well developed, but has taken the place of the gyrus parietalis inferior posterior. Lobus parietalis inferior as a whole is poor in gyri. Gyrus temporalis superior (T S, Fig. 13) is very narrow. Gyrus temporalis medius (T M, Fig. 13) is unusually broad and in its posterior portion perfectly insulated by sulci.

The gyrus fusiform (Fu, Fig. 14) is divided into two parts by a sagittal sulcus and is posteriorly perfectly insulated. Anteriorly it goes over in the gyrus hippocampi and the gyrus temporal inferior (T I, Fig. 13). The gyrus cinguli (C I, Fig. 14) is a well-developed gyrus. The pentagones anterior medius and posterior (mentioned by Brissaud) (P E N a. m. p., Fig. 14) are easily made out.

On the lateral surface of the occipital lobe are gyrus occipitalis medius and gyrus occipitalis inferior well marked.

On the insula and the other parts of the left hemisphere not mentioned nothing is found worth recording.

RIGHT HEMISPHERE.

Fissura sylvii (f sy, Fig. 15) is 51 mm. in length and at its posterior end is divided into two short rami posterious (r p c, r p d). From its anterior portion one branch passes upward, which then bifurcates to form ramus anterior ascendens (ra, Fig. 15) and ramus anterior horizontalis (r h, Fig. 15), which latter anteriorly becomes sulcus fronto marginalis lateral (Eberstaller) (f ma_{III}, Fig. 15). Although the two last named sulci communicate, the boundary between them is marked by a deep transverse gyrus (by x, Fig. 15). Behind ramus ascendens the sulcus diagonalis (d, Fig. 15) goes upward, sending forward a branch, which anastomoses with sulcus frontalis inferior. Sulcus diagonalis is shallow, not penetrating down to the insula, and consequently can not be considered as ramus ascendens fissura sylvii.

The sulcus centralis (c, Figs. 12 and 15) commences on the upper surface near fissura longitudinalis. It is slightly curved in its upper part, but its lower part has a straight course.

The sulcus cinguli (ci, Fig. 16) is continuous, but is double

in its pars anterior and pars intermedia (Eberstaller) (pa, pi, Fig. 16). Parallel to the lower part of sulcus cinguli the sulcus rostralis (ro, Fig. 16) runs forward, making an incision in the anterior edge of the hemisphere.

The sulcus præcentralis superior (prs, Fig. 11) in its upper part is about parallel with the sulcus centralis, but at the level of the middle of the hemisphere it goes backward and downward, cutting through the gyrus centralis anterior and the gyrus centralis posterior, ending in the sulcus posteriocentralis (p o, Fig. 15). The lower portion of the sulcus præcentralis superior thus has the same course in both hemispheres, dividing the gyri centrales in the same way on both sides. An upper short and shallow branch goes forward from sulcus præcentral superior, and a little laterally to this branch the sulcus frontalis superior (f_s, Fig. 11) passes forward. The latter soon divides into two sulci, neither of which reaches the orbital margin. The lateral branch of the sulcus frontal superior (f_{s_1}, Fig. 11) might be considered as an upper portion of the sulcus frontal medius. The sulcus frontal medius (fm, Fig. 12) starts a little back of the anterior end of the sulcus frontalis superior, branches freely and ends in sulcus fronto marginalis medius (f m a_{m_1}, Fig. 12), (Eberstaller). The sulcus præcentralis inferior (pr i, Fig. 15) is connected with the sulcus frontal inferior, but ends free, both in its upper and lower end, with which latter it nearly reaches fissura silvii.

The sulcus frontalis inferior (fi, Fig. 15) even on this hemisphere is short and anastomoses anteriorly with sulcus diagonalis (d). From fissura sylvii a sulcus subcentralis anterior (sb a, Fig. 15) is directed upward into gyrus centralis anterior. On the orbital surface a circular sulcus exists, from which three radiating sulci are directed forward and three backward.

The gyrus frontalis superior (F_1) is broader than on the left side, but the gyrus frontalis medial (F_m) is even in this hemisphere the most prominent. The gyrus frontalis inferior (F_{m_3}, Fig. 15) is small, with a small operculum intermedium. The gyrus centralis anterior (C A, Fig. 11) is, as mentioned, divided by the sulcus præcentralis superior into one superior and one inferior portion. The gyrus, which takes a nearly straight course, is narrow in its upper part, but is otherwise broad. The gyrus paracentralis is oval and anteriorly bounded by sulcus præcentralis medialis (pr m, Fig. 16).

The gyrus centralis posterior (C P, Fig. 11) is also divided by sulcus præcentralis inferior into one superior and one inferior portion. It is broad and takes a straight course.

LOBUS PARIETALIS, LOBUS TEMPORALIS, LOBUS OCCIPITALIS.

The sulcus postcentralis (retrocentralis) (p o, Figs. 11 and 15) is continuous, passes upward from fissura sylvii and ends in a sulcus that arches around incisura sulci cinguli (i c, Fig. 16). This arciform sulcus (p o s, Fig. 11) is probably best considered a part of sulcus postcentralis superior. Behind sulcus postcentralis superior a typical sulcus parietalis superior (Retzius) (p s, Fig. 11) exists, which starts on the medal surface and then goes transversely over the superior surface, sending one branch backward. The sulcus interparietalis is represented by two sulci. The anterior (i p a, Figs. 11 and 15) has one vertical forward concave part, which forms the posterior boundary of gyrus parietalis ascendens. Between the anterior end of sulcus interparietalis and fissura sylvii is found a short compensatory (Retzius) sulcus, which arches around the end of fissura sylvii. It is identical with the sulcus that Brissaud names sulcus lobuli parietalis inferior (sp i, Fig. 15). The posterior part (i p p, Fig. 11) of sulcus interparietallis is a short angular sulcus. With a short transverse part at its anterior end it helps to form the posterior boundary of gyrus parietalis ascendens. Posteriorly it communicates with the fissura parieto-occipitalis (f p o, Fig. 11) and ends behind this fissure as sulcus interoccipitalis (i o p, Fig. 11). Sulcus subparietalis (sp, Fig. 16) is anteriorly connected with sulcus cinguli and posteriorly with sulcus præcunei (p c, Fig. 16). The sulcus temporalis superior (t s, Fig. 16) is divided by a narrow gyrus into one anterior portion, which is double, and one posterior portion, which extends high up in the parietal lobe and here joins the interparietal fiirrow.

The sulcus temporalis medius (t m, Fig. 15) is broken up into several short sulci. Its ascending part sends one anastomosis forward to sulcus temporalis superior and divides then into two branches, which both extend upward, ending (t m, Fig. 11) as deep sulci in sulcus interparietalis posterior. The sulcus temporalis inferior (t i, Fig. 16) is well developed. It communicates with incisura præoccipitalis and joins posteriorly sulcus occipito temporalis (o t, Fig. 16).

The sulcus occipito temporalis (o t, Fig. 16) extends backward to the occipital pole and is joined at its central part by a sulcus lingualis (s l, Fig. 16). A three-stellated free sulcus exists in the posterior part of gyrus lingualis (s li, Fig. 16). The incisura præoccipitalis (pr o, Fig. 15) extends upward on the lateral surface of the occipital lobe, forming a sulcus præoccipitalis. Short branches go out from it forward and backward, which together might be considered to form a sulcus occipitalis lateralis inferior (ol_i, Fig. 11). The fissura calcarina is typical.

The fissura parieto occipitalis (f p o, Figs. 11 and 16) communicates only by a shallow furrow with fissura calcarina and takes on the upper surface a very remarkable course. There it communicates with sulcus interparietalis, but continues further laterally and divides then into two branches, one going forward, the other backward. The anterior branch goes forward and downward and soon joins a longitudinal furrow which runs on the lateral surface of the lobus occipitalis. The posterior branch goes backward, but turns forward again and joins also the above-mentioned longitudinal sulcus (o l_1, Fig. 15). This longitudinal sulcus goes downward and backward and sends, near its end, a branch forward, which anastomoses with another longitudinal sulcus (o l_2, Fig. 15), which enters anteriorly the temporal lobe and reaches posteriorly the occipital pole.

The fissura parieto occipitalis keeps its depth even laterally to sulcus interparietalis and becomes more shallow first at the point of division. The here described course of fissura parieto occipitalis is certainly abnormal and very seldom seen in the human brain. It corresponds to the course the fissura parieto occipitalis usually takes in the monkey brain and to what is described in the brain of the Egyptian by Elliot Smith.[1]

On the upper surface of the occipital lobe exist several small irregular sulci.

The gyrus parietalis ascendens (P A, Fig. 11) is well defined in its upper part, and forms here an irregular gyrus which can be followed to fissura longitudinalis. The posterior part of gyrus parietalis superior forms a plump polygonal gyrus. The gyrus supramarginalis (S M, Fig. 15) is beautifully formed. The gyrus angularis (G A, Fig. 15) takes its regular place, but is cut by the anastomosis betwen the sulcus temporalis superior and the sulcus interparietalis. The gyrus temporalis superior (T S, Fig. 15) is not as narrow as on the left side and continues upward in the gyrus supramarginalis and the gyrus angularis. The gyrus temporalis medius (T M, Fig. 15) is in its anterior part very broad, but becomes narrow in its gyrus angularis ascending part. The gyrus temporalis inferior (T I, Fig. 15) is rather narrow. The gyrus præcuneus (P C, Fig. 16) is divided by the sulcus præcunei into one gyrus præcuneus anterior and one posterior. The cuneus (C U, Fig. 16) has one sulcus which runs parallel to the fissura calcarina.

The gyrus lingualis (L, Fig. 16) and fusiformis are well developed. The gyrus cinguli (C I, Fig. 16) is well formed and shows the three pentagones very distinctly (PENa PENm PENp, Fig. 16). About the other parts of the hemisphere nothing remarkable.

MICROSCOPIC EXAMINATION.

The pia is normal. The intima pia runs perfectly smooth over the gyri, but most of its veins are distended with blood and in some places hemorrhages are found, both on top of

1. The Morphology of the Occipital Region of the Cerebral Hemisphere in Man and Apes. Anatomische Anzeiger, vol. xxiv.

the gyri and between them. The largest of the hemorrhages may be seen with the naked eye as punctiform. They exist also in the brain substance, usually the white, and are most numerous in the motor region, and in the frontal and temporal lobes, but may be occasionally found in the other parts of the hemisphere and in the central ganglia. They have all the character of fresh hemorrhages and must have occurred shortly before death. The blood vessels in the pia and in the brain substance are normal. Their walls are not thickened and no infiltration exists around them, but in the parts of the brain

Fig. 5.—Pyramidal cell from the deeper part of cortex. (Leitz system 1/12, ocul. III.) (Rosin.)

where the hemorrhages are numerous a slight edema is found around some of the veins. There is no measurable change in the thickness of the cortex, and estimations of the number of the ganglion cells have given the same figures as in normal brains. The giant ganglion cells (Betz) are normal, but in the large pyramidal cells and in those of medium size a slight chromotolysis was frequently met with (Fig. 5). In the layers of the medium sized and the small pyramidal cells,

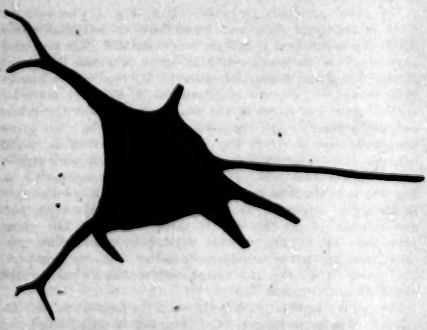

Fig. 6.—Degenerated pyramidal cell from the middle layer of cortex. (Leitz system 1/12, ocul. III.) (Rosin.)

especially in those parts of the brain that showed numerous hemorrhages, many cells were found showing the degeneration described by Hoche (Fig. 6). The same kind of degeneration was also found in nucleus dentatus.

Notwithstanding repeated trials it has been impossible to stain the neuroglia with any of the elective methods. There seems, however, to exist a slight increase in the neuroglia nuclei in the motor region and parts of the frontal lobe, but the increase is so very slight that I do not venture to decide positively if the glia is increased or not.

The number, size and arrangement of the medulated fibers correspond perfectly to the normal. In Figs. 7, 8, 9 are reproduced sections from different parts of the brain, and in Fig. 10 a section from a sane man of the same age as the patient.

Section 10 is about 5 microns thicker than the other sections and serves mostly as a control of the reproduction. The thickness of the other sections varies between 15 and 20 microns. They show the different strata and the radiating fibers without any perceptible deviation from what normally is found in the corresponding gyri. The ependyma is normal in the lateral ventricles, the aqueductus sylvii and the fourth ventricle. Especially important is that the brain tissue beneath the above mentioned depressions in the frontal lobe was found perfectly normal in all its layers.

The brain can be said to have in general broad gyri, but it does not present altogether well formed and regular gyri and sulci. Although there is nothing in the formation of the gyri and sulci that can be classed as positively pathologic, certain features are worth mentioning. Thus the right frontal lobe does not extend as far back as the left, and several of the gyri give the impression of a conformation lacking in proportion and symmetry as, for instance, Broca's gyrus, certain parts of the gyri centrales, parietalis and temporalis. Furthermore, an unusual number of deep anastomoses between the great sulci and, finally, the abnormal development of fissura parieto-occipitalis. It may be that the irregularities mentioned have not any significance, but, on the other hand, they may be signs of a faulty development. As heredity is generally considered one of the most important factors in the etiology of circular insanity, it has seemed to me important to look for formations that could possibly indicate a faulty development and to make the material available to comparison with brains from other cases of the same disease, I deemed it necessary to give a full description of the gyri and sulci with accompanying drawings. The microscopic examination has, as seen, not given any positive results, except the finding of hemorrhages, the slight caromatolysis and the Hoches degeneration, and all these changes have their natural explanation in the typhoid fever of which the patient died. But, on the other hand, the microscopic examination has strengthened the clinical diagnosis, making it possible to exclude a dementia paralytica.

One distinct pathologic change has been found in this case and that it is the exostoses with adherent dura. Now the opinion has been expressed that exostoses could perhaps have some influence on the development of a circular insanity by the changes they cause in the cortex. In Dr. Dewey's case, however, there was not found the slightest alteration of the cortex in that part of the brain which was exposed to a supposed pressure of the exostoses, and I can not, under such circumstances, see any reason to suppose that the exostoses have had any influence on the insanity in this case.

SOME GRAPHIC OBSERVATIONS OF ANKLE CLONUS.

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PHILADELPHIA.

[From the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases.]

The phenomenon known as ankle clonus consists in alternate extension and flexion of the foot on the leg, repeated a varying number of times, following passive flexion of the foot effected rather rapidly and forcibly and maintained somewhat firmly. It is best induced with the leg flexed slightly on the thigh and supported in the palm of one hand, although it can at times be

elicited—as with the patient lying supine in bed—when the leg is fully extended on the thigh. Its presence is, in general, an expression of excessive irritability on the part of the motor path in the lumbosacral segment of the spinal cord, and while it is occasionally observed in cases of neurasthenia and hysteria, it is, as a rule, a sign of organic disease. It can at times be induced in healthy persons by supporting the weight of the body on the ball of the partially extended foot, with the leg flexed moderately on the thigh. Under such circumstances the movement can, and in fact often must, be begun voluntarily, and its continuance requires a certain amount of voluntary contribution. In the presence of organic disease of the nervous system, however, the movement, once begun, continues until it exhausts itself, quite independently of the will of the patient, who can neither induce nor prevent it by this means.

The phenomenon, it is thought, is a reflex brought about through the intermediation of an impulse transmitted to the spinal cord as a result of the tension suddenly applied to the muscles of the calf through the Achilles tendon. The flexion of the foot is effected by the anterior tibial muscles, the extension by the muscles of the calf. The latter is commonly attributed especially to the action of the gastrocnemius, but this can be so only when the leg is extended on the thigh, for it is under such conditions alone that the gastrocnemius is, by reason of its origin from the femur, capable of causing extension of the foot. Ordinarily, however, in the study of ankle clonus, with the leg slightly flexed, extension of the foot is effected principally by the soleus. Both anatomically and physiologically the soleus and the two heads of the gastrocnemius may be looked on as representing the three heads of a tricipital muscle, which do not always act together. The same arrangement is observed in the case of other muscles provided with two or more heads.

According to Gowers,[1] ankle clonus is characterized by regularity of movement, slight variation in different individuals and in the same individual at different times. He found the average number of contractions to be nearly 6 in the second. At first he made the limits between 5 and 7, but more recently he has placed the upper limit at 10.[2] In obtaining tracings of the movement he has observed the rise of the lever in the kymographic record to be more sudden than its decline, while the actual amount of contraction and the extent of movement vary in different individuals.

On the suggestion of Dr. S. Weir Mitchell, I undertook a series of graphic observations of ankle clonus, in order to determine if, like the knee-jerk, it could be reinforced by motor influences, with the result that such reinforcement was at times appreciable to the hand of the observer in contact with the foot, particularly after the clonus had been going on for some time, and as indicated in some of the tracings in the form of increased frequency of movement. The clonus was in some instances induced by means of the hand applied to the ball of the foot and in other instances by means of traction applied from behind the patient through an elastic band.

Most of the tracings were made with the aid of two tambours, one of which was either connected with the foot by means of a stiff wire or applied directly to the foot, while to the other was fastened a style that recorded the movement on the surface of sooted paper mounted on a revolving kymograph. In some instances a rubber bulb was employed instead of the tambour applied to the foot.

To study the normal ankle clonus I made a tracing of the movement of my own feet, obtained by resting rather firmly on the ball of the foot with the leg flexed to a considerable degree on the thigh. I found this not entirely easy of accomplishment, and only with a certain amount of volitional contribution. The tracing (Fig. 1) shows a frequency of between 7.3 and 7.6 in the second for the right foot, and between 7 and 7.4 for the left foot, taken separately, with irregularity in amplitude and occasional dicrotism. These figures correspond approximately with those obtained by Alexander James,[3]

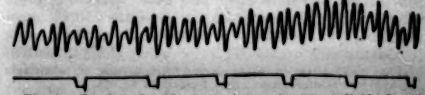

Fig. 1.—Tracing of ankle clonus from a healthy individual; rate about 7 per second; exhibits variation in amplitude and occasional dicrotism; read from right to left.

who, in observations on five healthy persons, found the frequency of the movement to range between 6 and 8 in the second. From his further studies of this subject, James[4] was led to believe that the rapidity of ankle clonus is in inverse ratio to the height of the individual; that the clonus is more rapid in individuals of nervous temperament as compared with those who appear phlegmatic; that it is more rapid in men who indulge in athletic sports than in those who are less active physically; and that it tends to become less rapid as age advances.

In a case of hemiplegia I found the frequency of movement to range from 6.6 to 7.2 in the second, averaging 6.9 in fifty-seven seconds, with a progressively lessening tendency (Fig. 2). The tracing exhibits great regularity and a persistent notch between the beginning and the middle of the downstroke of each wave. In a

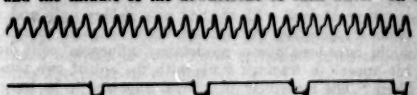

Fig. 2.—Tracing of ankle clonus from a case of hemiplegia, made with the aid of two tambours; rate about 7.2 per second; persistent notch in downstroke; read from right to left.

second observation (Fig. 3) the number of movements varied between 6 and 6.4 in the second. The tracing exhibits great constancy in frequency, in rhythm and in amplitude. It is characterized by a persistent dicrotic notch at the bottom of each wave. There was no apparent effect in any way from attempts at reinforcement, as by clenching the fists, closing the eyes or opening the eyes. The range of movement was far more marked than in the tracing from myself, and the curve was far more regular, but in this, as in all other tracings from patients suffering with organic disease of the nervous system, the clonus was entirely involuntary.

In a case of myelitis (Fig. 4, Tracings 38, 39, 40), the frequency of movement was extremely variable, becoming, with the amplitude, progressively less, until the movement ceased spontaneously. This would appear to have been due to exhaustion. The average range was

1. Medico-Chirurgical, Transactions, 1879, second series, vol. xliv, 269.
2. A Manual of Diseases of the Nervous System, vol. i, p. 12, 3d ed.
3. Edinburgh Med. Jour., xxvi, i, 1880, p. 135.
4. Ibid., xxviii, ii, 1883, p. 1075.

from 6.4 to 8 in the second. A dicrotic notch appeared at times at the beginning of the upstroke, at other times a little later, and at still other times in the downstroke. It was noted that when the amplitude was greatest the notch occurred in the upstroke, and as the amplitude became less the notch appeared in the downstroke. The curves in this tracing, as in others, exhibit a tendency to group themselves in pairs. Here also no influence appeared to be exerted by clenching and relaxing the hands. (Tracings 39, 40.)

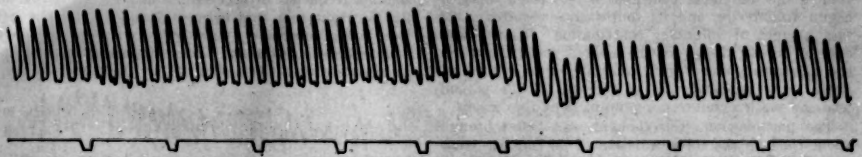

Fig. 3.—Tracing of ankle clonus from a case of hemiplegia; rate from 6 to 6.4 per second; persistent notch at bottom of wave; no apparent reinforcement; read from right to left.

In another case of myelitis, the frequency of movement ranged from 6 to 8 in the second, and some of the tracings showed increased frequency of movement as a result of reinforcement (clenching the hands, closing the eyes). It was also noted that when reinforcement was not thus manifested in the tracing it was distinctly appreciable to the observer holding the foot. In one instance the act of clenching the fists was attended with a temporary reduction in the range of movement and slightly increased frequency, though the frequency was still further increased when the hands were released. In the tracings obtained with the aid of a rubber bulb and a tambour, dicrotism was marked, but this, it was thought, might have been due to mechanical influences, as it did not appear in tracings made with the aid of two tambours. The movement in general appeared to be irregular in frequency and extent.

In a case of compression myelitis the average frequency of movement in fifty-six consecutive seconds was 6.48 (6.66 in the first fifteen seconds, 6.46 in the next fifteen seconds, 6.41 in the succeeding seventeen seconds, and 6.3 in the final nine seconds), thus exhibiting a progressively diminishing tendency. In another tracing (Fig. 5) from the same case the average rate of frequency for twenty-one seconds was 6.24, with practically no variation, and no appreciable influence was noted from various attempts at reinforcement (R in Fig. 5), such as closing and opening the eyes, clenching and relaxing one or both hands. Some of the curves exhibited a tendency to arrange themselves in pairs.

In a case of lateral sclerosis in a young man, the influence of reinforcement was distinctly appreciable to the examining hand, and it was also shown in the tracings in an increase in the frequency of movement. Thus, with the patient passive, the number of movements in the second was quite uniformly 5.8, while, when the hands were clenched, the frequency became increased to 6.8 and 6.9. These tracings exhibit further a grouping of the waves in pairs, and a distinct dicrotic notch or secondary wave in the descending portion of the curve. In this case tremor of the thighs was induced, evidently through the gastrocnemius and soleus jointly, when the patient stood erect with the legs well extended on the thighs.

In a case of probable porencephaly, the frequency of movement ranged from 7 to 7.3 in the second, averaging 7.2. In addition to the movements of flexion and extension of the foot that constitute ordinary ankle clonus, lateral movements of the foot also could be induced in this case, and these were found to average 6.5 in frequency, with little variation (Fig. 6).

These observations appear to show that there is a not inconsiderable variation in the frequency of the movement of ankle clonus obtained under different conditions, namely, between 5.8 and 8 in the second. In a healthy person it was from 7 to 7.6 in the second; in a case of hemiplegia, from 6.6 to 7.2, averaging 6.9; in a case of myelitis, from 6.4 to 8; in another case of myelitis, from 6 to 8; in a case of compression-myelitis, from 6.2 to 6.7; in a case of lateral sclerosis, from 5.8 to 6.9; and in a case of probable porencephaly, from 7 to 7.3. In some cases reinforcement was distinctly evident, being appreciable to the examining hand and indicated in the tracings by an increase in the frequency of the movement. The failure to demonstrate this reinforcement with greater constancy may be due, in part at least, to the manner in which the reflex was elicited, the extension of the foot, in degree and vigor, being held somewhat in check by the examining hand, or by the elastic band that was employed for the same purpose, so that the reinforcement in either of these directions escaped record. Ankle clonus can not be induced in the usual manner in healthy individuals, and the movement

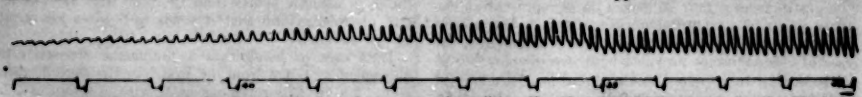

Fig. 4.—Tracings 38, 39, 40. Tracing of ankle clonus from a case of myelitis. No. 38, average 7.8 per second. No. 39, hands clenched; average 7.5 per second. No. 40, hands relaxed; 6.6 per second. Exhibits progressively diminishing frequency and gradually diminishing amplitude, with spontaneous cessation; dicrotic notch at first on upstroke, subsequently on downstroke; read from right to left.

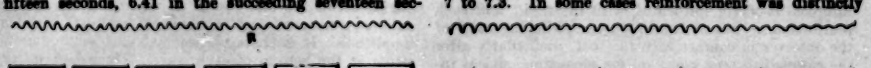

Fig. 5.—Tracing of ankle clonus from a case of compression-myelitis; made with the aid of two tambours; rate about 6.2 per second; exhibits arrangement of waves in pairs; read from right to left.

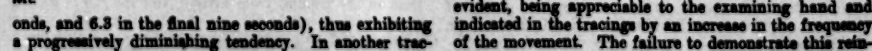

Fig. 6.—Tracing of lateral movement of foot from a case of porencephaly; rate about 6.5 per second; read from right to left.

excited by supporting the weight of the body on the ball of the foot requires in some degree the consent, if not the co-operation, of the individual. It is, therefore, to be looked on as an artificial or false clonus, and accordingly as wanting in the significance of the true clonus. The frequency of the former agrees in general with that of the latter.

MEDICAL EDUCATION AND PRELIMINARY REQUIREMENTS.*

GEORGE H. SIMMONS, M.D.
CHICAGO.

The subject that I shall discuss to-night is one that has many phases, and one on which all do not agree; however, it is one of vital importance and one in which all are interested. I trust that your deep interest in the subject will influence you to bear with me, even though our opinions may not coincide in every particular.

At no time in the history of our country has there been such an unrest in educational affairs as now. The primary and grammar grades have apparently a sure foundation, and will continue to remain about as they are. But above these grades everything seems to be uncertain. Even the high school, we are told, has not an absolutely certain position. What is to become of the college, however, is the question anxiously asked by those who are in the habit of looking through dark-colored glasses. They are sure that the high school will reach up and the university down till the two meet and the college vanishes. And the university; what is to become of it? Is it to be Germanized and developed into a fraternity of professional schools, or Anglicised, and result in simply a combination of colleges? I do not know, but I feel sure that the university will develop until it fits the needs, the genius and the conditions of our country; that the college will remain a distinctive American institution, consequently a necessity. The unrest now prevailing and the evolution now going on will result, I have not the slightest doubt, in establishing more firmly than ever our present splendid educational system, only more perfect than now, and better adapted to the needs of our people.

If there is an unrest in regard to general education, what shall we say of medical education? Unrest is not a sufficiently strong term. Evolution, if not revolution, would better fit the condition.

One of the most prominent signs of the times is the fact that educators are becoming actively interested in a higher standard of medical education, and recognise it as a part of a problem that confronts them. The relation of the professional school to the college and to the university has become so important that a number of conferences have been held by educators to consider the subject, one of the most important in the West being that held last May in Chicago. At this there were represented no less than thirty-two colleges and universities from Massachusetts to California. The report of this conference makes interesting reading, but the most interesting fact revealed to us as medical men is that medical education has become of sufficient importance to engage the attention and earnest consideration of the leading educators of our country. This, I repeat, is encouraging and full of promise for the future.

* An address delivered at the dedication of the new building of the Medical Department of Drake University, Des Moines, Iowa, Jan. 20, 1904.

AN OVERCROWDED PROFESSION.

It may be interesting at the outset to call attention to the fact that our profession is enormously crowded, compared with relative conditions in other countries, and that, if we can deduce anything from educational statistics, this condition is annually becoming worse. At the present time it is estimated that the ratio of physicians to population is one to less than 600. We have twice as many physicians, in proportion to the population, as England, four times as many as France, five times as many as Germany and six times as many as Italy. Yet in each of these, especially in England, France and Germany, there is a cry of oversupply.

In the year 1880 there were 90 medical colleges in the United States, 11,826 students in attendance and 3,241 graduates. Last year there were 154 medical colleges, 27,615 students in attendance and 5,698 graduates. That is, there has been an increase of 64 colleges in twenty-three years, or 71 per cent. The number of students in attendance has increased by 15,789, or 133 per cent., and the graduates increased 2,456, or 75 per cent. During the same period the population has increased less than 50 per cent. It is estimated that 1,700 physicians died last year, and that 500 withdrew from practice, either retiring or entering other callings, making a total loss of 2,200. Let us be liberal and put it at 2,500. This would leave to be added to the profession during 1903 approximately 3,200. Thus there are annually being turned out of our medical colleges twice as many graduates as are required to keep up the present absurdly crowded conditions, even if we allow for the normal increase in population. If the annual output of our medical colleges increases proportionately during the next twenty-three years as it has during the past twenty-three years, it can be easily estimated what the conditions will be then. During the last four years 21,355 young physicians have been poured into the ranks of our profession. At least as many entered the colleges during the present college year as graduated from them last year. Hence, during the next four years at least 27,600 more will be added, making nearly 50,000 new physicians entering the ranks during the first eight years of the Twentieth century. One is tempted to make harsh criticisms when one realises the cause of all this.

In connection with this another phase of the situation should be noticed. In the past there have been openings waiting on the frontier, even though the cities, towns and villages in the settled part of our country were oversupplied. New states and territories were opening up and developing, and these offered alluring possibilities. Here, there and everywhere on the prairies, among the forests and in mountain fastnesses, villages were rising up and developing into towns and cities, offering homes and a livelihood for the courageous and enterprising. To-day all is changed. From the Atlantic to the Pacific, from the tropical shores of the Gulf of Mexico to the cold borderland of the North, it is settled. There is no longer any undiscovered or any undeveloped country. And no matter which way he looks, or where he may go, the young physician will find the field occupied—another physician is there before him. But he squeezes in somewhere, divides up with others, and succeeds, fails or vegetates, depending on the man and his abilities. It is now a case of the survival of the fittest.

But why take this gloomy view, you say; why show this dark side of the picture? Solely to answer at the outset the argument so often made by raising the stand-

ard of our medical-teaching institutions there will not be enough young men enter on the study of medicine to supply the demand.

The low standard of the medical education of the United States, as compared with that in other countries, has long been the cause of much solicitude. While it is granted that a few of our medical men have taken front rank, and have been equal to the best in any country, academically and in what they have accomplished, the majority of the profession have been poorly equipped professionally, and the low grade of general education has been too distressingly evident.

I speak of the past because the improvement in both respects during recent years has been evident, and we can speak less harshly of the present. I do not mean by this that prevailing conditions are satisfactory, much less perfect; on the contrary, it is only by comparison that we can make use of conservative statements regarding present affairs. Some unpleasant things are bearable—even enjoyable—by comparison. It is not so very long ago that the degree of doctor of medicine was granted after two courses of lectures of four or five months each, and the preliminary requirements were what each individual college thought its best interests required; those interests too often were that the student had the necessary financial ability to pay the fees. The student's interests and future welfare were usually secondary considerations.

TIME REQUIREMENTS.

The most remarkable change which has taken place is the advancement in the length of time required for the medical degree. Twenty-five years ago the colleges that required more than two years of five months were few indeed. Gradually this has been extended until now all schools require a four-year course, although it was only a year ago that the last one was forced into line.

But, for the reason that a college year is a variable quantity, the uniformity of time requirements are more apparent than real. In the United States, including the state universities and privately endowed institutions, including only those which are fairly reputable, there are sixteen that require a nine-month course; nearly forty in round numbers that require an eight-month course, a like number that require seven, and twenty-six that require only six months for the college year. It is rather notable that nearly all the great eastern schools, with the exception of Johns Hopkins, Harvard and the University of Pennsylvania, still require only thirty to thirty-two weeks for the school year, and that all the six-month schools, except two, are in the South. We should realize that those which have nine months for a college year are requiring two-thirds more time than are those with but six months. This variability as to the time requirement is noticeable in your own state. Thus you have your own institution and the State University requiring the full time—a total of thirty-six weeks per annum, while one college requires only eight months and still another only seven months, or a total of twenty-eight weeks. In other words, if the latter school had a five-year course, its total time requirement would then lack a month of being as long as yours or that of the state university.

LACK OF UNIFORMITY IN THE CURRICULA OF MEDICAL COLLEGES.

The lack of uniformity in time requirements is not as serious as the variability in the curricula, not only of the private medical schools, but also of the medical departments of the universities. This can be verified by a study of the catalogues of the various institutions, but especially by an inquiry regarding the work absolutely done. This want of uniformity is noticed primarily in the variability in the time given to definite subjects, in the entire omission of many vital ones, and in the lack of sequence in which the subjects follow each other. This has been recognized for some time, although little, so far as I know, has been done to remedy the evil. A beginning seems to have been made, however, for at the last meeting of the National Federation of Examining and Licensing Boards, a committee, appointed for the purpose the preceding year, made a report in which attention is called to the matter. The committee stated[1] as follows:

> In the interests of a higher and improved standard of medical education, and of interstate reciprocity in licensure, and in order that the degree of M.D. may have a definite meaning, at least an approach to a uniform, fixed value, it is desirable that a minimum standard of requirements for graduation in medicine shall be established and maintained. Heretofore the standards established by the Association of American Medical Colleges, and other similar organizations, have been an outline or definition of a "medical course" in the most indefinite terms. For example, "four years of six months each, in four separate calendar years." Not a word in regard to the number of hours of work in each month or in each year and no specifications in regard to the relative amount of time devoted to each study in the curriculum, the order or sequence in which the studies should follow each other in the course, nothing in regard to whether the work should consist of lectures only, or of laboratory work, recitations, lectures and clinics combined, and especially the relative amount of time devoted to each, especially clinics.

As regards the time spent on the different subjects, we find that of forty representative schools the following variation is noticed:

Anatomy varies from 200 hours to 1,248 hours; physiology from 96 hours to 450 hours; chemistry from 176 hours to 652 hours; histology and embryology from 70 hours to 450 hours; bacteriology from 45 hours to 364 hours; pathology from 54 hours to 512 hours, and so on. If we take the practical subjects of general surgery—medicine and obstetrics—the following absurd conditions are found to exist: Surgery varies from 64 hours to 1,168 hours; medicine from 140 hours to 1,232 hours, and obstetrics from 67 hours to 320 hours. These figures are mostly from the report above referred to.

It should be understood that while I have quoted the lowest and highest number of hours devoted to a subject, some of the schools do not provide for any instruction whatever in certain of the branches. For instance, physiology, bacteriology, pathology, histology, etc., are subjects one or more of which are absolutely ignored by many. The most important subject in the whole curriculum, ignorance of which has ruined the reputation of so many men and resulted in thousands of unnecessary deaths and physical wrecks, is obstetrics. And yet, all that some colleges claim is a course of didactic lectures that can be delivered in a less number of hours than are included in three full days; a subject as impossible to teach with didactic lectures as it is to teach a man to swim by a course in a correspondence school. Clinical, hospital and dispensary work, which are indispensable, are sadly deficient, or are not provided at all in many institutions, except in the annual announcements and catalogues. The same is true of laboratory

1. THE JOURNAL A. M. A., Aug. 15, 1903, pp. 456 and 457.

work, without which a working knowledge of modern medicine is out of the question.

I call attention, in passing, to these lacks of uniformity in time spent and in work done, so that you may realise their existence. Each is an important factor in medical education, and each must be considered in the near future.

PRELIMINARY REQUIREMENTS.

Preliminary requirements for matriculation in medical schools has been a live and important question for more than half a century. The main object for which the American Medical Association was created fifty-six years ago was that of elevating the standard of medical education, especially the entrance requirements, and this was one of the principal questions discussed at each annual meeting through its earlier years. Later, the college associations, the American Academy of Medicine and the state boards of health took up the work. The result has been evident in the lengthened course. But the efforts to raise the standard of preliminary requirements were less fruitful, and for years these were lamentably low, so low that even an elementary knowledge of "the three R's" was not insisted on by many schools. The influences at work, however, gradually had effect, and now all require, at least nominally, a good common-school education. Yet there are some so anxious to get students that even this is not always insisted on, and many of those which make pretenses of a reasonably fair standard of requirements use the subterfuge of conditioning to admit a student, and the faculty carefully forgets that the prescribed conditions have not been fulfilled.

In considering the requirements for entrance, we must recognise two standards. The first is that which shall be demanded of all schools and below which none shall be allowed to matriculate students—the minimum requirement. The other is the preliminary educational standard, which is best and most practical for the student and that should be demanded by those colleges which desire to be classed among the best. This we may call the ideal requirement.

THE MINIMUM REQUIREMENT.

It is essential to fix a minimum below which no medical college should be allowed to admit students. This principle will be accepted by all, and I am sure that all will agree on what that minimum should be. In fact, a large number of states have fixed by law the minimum standard, namely, a high-school degree or its equivalent. But when this was done, it was soon realized that it was a vague and uncertain standard, since a diploma from a high school in one state or community represents something entirely different from one in another state or community. This lack of uniformity in high schools so affects all educational institutions above the primary grades that a strong movement is now being made by educators to remedy the difficulty. Your own state has done wonders in this regard during the last five years. This movement will undoubtedly result in the recognition of only those schools that come up to the standard laid down some years ago, which requires four years in which to complete the curriculum. Until the standardization of high schools is perfected, we must specify what class of high schools we mean when we refer to these institutions. This, too, is already done in the medical laws of some nine states, for in them the minimum preliminary requirements are definitely stated to be those of a four-year high-school course or its equivalent. Consequently, medical schools which do not have this standard of entrance are not recognized in such states. Further, the four-year course is specified in the action taken last summer by the Association of American Medical Colleges when it amended its by-laws providing that after July 1, 1905, the 68 colleges holding membership in that body must either withdraw or demand as a minimum requirement for matriculation either a diploma from a four-year high school or normal school, a bachelor's degree from an approved college or university, or an examination in branches which are specified. The public school-teachers of your own state have gone on record regarding this matter. Let me quote from the general principles formulated by the committee of twelve of the Iowa State Teachers' Association. Section 6 says:

> The committee was unanimously of the opinion that all should unite in an effort to have schools of law, medicine, pharmacy, dentistry, etc., require at least the full four-year high-school course. The highest interest of the state and of the nation demands this preliminary equipment for these duties of life and for anything like proper efficiency in these professions.

These principles were enunciated by your own educators some five years ago.

With our system of free education, with high schools of the required standard in every town of any importance, there can be no excuse for the old worn-out plea that it will work a hardship on the poor, self-supporting student who has not had the opportunity for obtaining an education. A young man who is so situated that he can not attend a high school can overcome the difficulty at least by home study, if he has energy, ambition and intelligence. If he has not, it would be better for him, for the profession and for the public that he follow the calling to which his talents are suited; he should not be allowed to enter a learned profession at this age when free education is within the reach of all. Even for the student's welfare and future success, he should not be allowed to start on a career for which he is not qualified. As I have shown, there is not such a great demand for medical men that it is necessary to allow, much less to urge, those to enter the ranks who lack the fundamental education necessary to make success possible. Reasonable requirements are for his interest. With the keen competition, which is yearly growing keener, it is reasonable to suppose that one without them would not have a fair chance with those who start out well qualified. Some may urge that it would be a hardship on the college; that some of the poorer institutions if they raise their standard will lose students. Regarding this, let me quote a paragraph from the report of the committee of the Association of American Medical Colleges:

> That the adoption of such standards as are proposed here would be disastrous to unendowed medical colleges, seems to your committee a most surprising argument to bring forth. For what are medical colleges established? For the benefit of the members of the faculty, or of the board of trustees who may reap some financial profit from them? Surely, this is not the case. No medical school can justify its existence except on the ground that it is engaged in a work that is necessary to the community and that it is being conducted in a proper and legitimate way along lines and in accordance with the standards that are demanded by the times. If the statutes and rules of the examining boards of eight of the leading states have already established higher standards, it seems to your committee that it must be a difficult task for any faculty to maintain its right to turn out students on requirements far

below these demands, which are pretty uniformly the very minimum that the conditions warrant.

But what about carrying out the provision regarding entrance to medical colleges? They may agree to live up to the requirements specified, they may emphasize them in their catalogues, but will all the schools enforce them and insist that the student shall honestly pass the required examination, if the examination is left to the college? Not if we are to judge the future by the past. It is well known that there are many medical schools to-day that are not living up to what they now claim. This is a harsh statement, but it is one that will be borne out by facts. So it is not at all impossible that if the examining of the students and the passing on the qualifications are left to the colleges, some of them will be lenient, to put it mildly, in conducting the examinations. This fact has been recognized by certain states. New York has long controlled entrance to its colleges, the Regents of the University of New York, which is not a teaching body, passing on those to be admitted to the professional schools in that state. A year ago Ohio adopted a very excellent provision, for, while it resulted in closing some of the medical colleges, it has been the means of remarkably improving the class of men in attendance and of elevating the general character of the institutions. In that state a principal or superintendent of schools passes on all who enter the medical colleges. Other states, such as Minnesota, Pennsylvania, etc., have some supervision over the requirements, but, so far as I know, none so effective as New York and Ohio. Other commonwealths will undoubtedly soon follow, and Iowa certainly will not be the last one to fall into line. No greater advance can be made than that of taking from the low-grade proprietary colleges the right to say who are qualified to enter. This is fundamental. In England and in all civilized countries except this, the preliminary educational qualifications for the prospective medical student are passed on by those not connected with the medical-teaching institutions. But here, again, we have more encouraging work on the part of the Association of American Medical Colleges, for when it provided for the four-year high-school course as the preliminary requirement, it also adopted the following section:

> This examination [that is, the examination in cases in which the prospective medical student does not have a four-year high-school diploma, or something better] must be conducted by or under the authority of the superintendent of public instruction of the city or state in which the college is located; in no case shall it be conducted by any person connected with the faculty, medical or otherwise, of the institution to which the student is seeking admission.

This goes into effect in July of next year, and I predict that it will prove to be the most effective for good of anything the college association has ever done.

There are, however, 56 regular colleges that do not belong to the Association of American Medical Colleges. Thirteen of these are members of the Southern Medical College Association, which, without doubt, will soon take action and place its preliminary entrance requirements up to the required standard. Of the remaining 43, some four or five high-grade schools, such as Harvard, etc., have either refused to affiliate with or have withdrawn from the college association because they heretofore have considered the association's requirements for entrance and for the degree too low. This leaves about 40 regular colleges of the lowest grade. I think we need not be anxious about them. With professional opinion against them, with the state-licensing boards insisting on what the great majority of colleges demand, and with the increased number of states enacting laws requiring the standard high-school course for matriculation, these low-grade schools must either come up to the standard or go out of existence.

THE IDEAL REQUIREMENT.

We have been considering that grade of requirements that is absolutely necessary for entrance to a medical college, and below which none should be allowed to matriculate. Let us now look at the matter from another point of view—that of the best interest of the student. Is that amount of education represented by the four-year high-school course ample for one who desires to become a well-equipped scientific physician, using the word "scientific" in its broad sense? If so, then it is unfair to force the high-school graduate to waste his time in more preliminary work; on the other hand, if it is not sufficient, it is equally unfair for an institution to encourage or permit a student to enter on his professional course with such a lack of preparation. It seems to me there is but one answer to the question: While the high-school course gives a fair foundation for ordinary life work, it does not provide a sufficient preparatory education for a physician if he is to master the sciences that are the basis of modern medicine. What, then, is necessary? Must the prospective physician have a full course in the college of liberal arts, with the A.B. or B.S. degree, and then the full four-year medical course? There is no doubt that with such a grounding in certain of the sciences in the college of liberal arts, the student would have a comparatively easy time in his medical course. It would give him ample opportunity for laboratory work, for original investigation and for obtaining practical clinical knowledge. No one will deny that this course is an excellent one for those who have the means, the time, the energy and the ambition to take it. The value of a broad foundation in general culture as a basis for any life work can not be overestimated, especially if that work is to be done in one of the learned professions. "Do you believe that a general insistence on a college education for physicians is desirable?" is a question that was asked of fifty medical schools by a committee of the American Academy of Medicine. Twenty-four answered "Yes," and nineteen "No." Probably, however, if these nineteen had been asked whether they thought a college education is desirable or not, that all would have answered in the affirmative. All will agree that a full college course before entering on the study of medicine would be very nice, but all are not ready to say that it is desirable, much less that it should be insisted on. It is too Utopian to imagine that the minimum requirement for entrance to the professional school shall be the full college course. Gradually other schools may join Johns Hopkins, Harvard and Western Reserve, and require the college degree for entrance to the medical department. While there will probably never be many of these, it is well to recognize certain facts. When, in 1895, Johns Hopkins Medical School was opened with the startling announcement that the requirements for admission would be, not only a bachelor's degree in art, but also a year's work in biology, physics, chemistry and a reading knowledge of French and German, great skepticism was expressed regarding the advisability of setting up such a high standard, even by a school so liberally endowed and not dependent on fees from students.

It was declared at the time that the entrance requirements were absurdly too high. Still a dozen students enrolled the first year, and the number has been steadily increasing since. And what is of importance, the school is attracting to itself the best and most promising young men.

The number graduating from the colleges of liberal arts has enormously increased during recent years, and is steadily increasing, and the number of institutions demanding the fullest culture as preparatory to professional studies may possibly increase also, although it is also possible that the number of these will never be very large. Some one has suggested that in the near future such institutions will grant degrees that will be more highly valued and more sought after than will be those of the average school. This, however, is in the future, and probably always will be. The history of education is full of surprises, and one of these may be the abolishment of all the bachelor degrees. If our allotted time on earth were twice as long as it is, the ideal would be the full college course, but when it takes till one is twenty-seven or twenty-eight years of age to complete it, it is not ideal. President Butler in his recent report[2] says, first, that "the stage of development, measured by graduation from a secondary school, is not sufficiently high to serve as the basis for the best type of professional study, or to enable a university to train really well-educated professional students." And, second, "that the stage of advancement, measured by graduation from a four-year college course, is so high as to delay unduly the young man's entrance on the active practice of his profession, and to prolong unwisely the period which the student remains under tutelage."

If, then, the four-year high-school course is insufficient and the college course excessive, what is the mean or ideal one? For a standard preliminary training must be agreed on, and what this is must be definitely understood. If the choice of fixing terms of admission be either a four-year college course or the high-school course, the influence of the majority of the universities and professional schools would be in favor of the minimum.

The ideal preliminary education for the medical course is already practically agreed on: Four-year high-school course, followed by two years of electives in a college of liberal arts, the two college years to be devoted to work more or less bearing on, but not necessarily fundamental to, the medical course. Such a course of preliminary work is practical, as well as ideal, for it is within the reach of all, requires but a moderate amount of time to complete the combined course, and because it presupposes that all the branches necessary, and no more, shall be covered. The two premedical years in a college of liberal arts, well equipped for teaching the required subjects, give a special foundation for the professional school work, and cover the essentials and these only. Such a course indicates a mean between the absolutely necessary preparatory work, the minimum or high-school course, and the full college course. It means the inclusion of the scientific and practical, and the omission of the so-called academic. It is a standard of requirements that is recognized as desirable, if not necessary, by all educators, without exception. It is the requirement that is already in force in a number of institutions, and will be demanded by all the progressive schools, especially by those affiliated with universities, within the next few years, I am sure. The trend of the discussion in regard to the subject indicates this.

The educated physician of the future must be a scientific man. The new conditions demand it. Pathology, histology, bacteriology, physiologic and physical chemistry, hardly thought of a few years ago, are as necessary to the physician now as once were the rudiments of anatomy, physiology and materia medica. But to obtain a knowledge of these newer branches, so that one can put them to use in every-day practice, requires something more in the way of preparation than an ordinary secondary school education. To be so equipped that he can enter on their study understandingly, the student must know how to use the microscope, must have a general knowledge of biology, of chemistry, of physics, of electricity, of light and sound. These are necessary—absolutely so.

Take, for example, the manner in which chemistry has been taught in medical schools for so many years. The student endeavored to master in the short period available that part of the subject that was supposed to bear on medicine, and consequently could be put to practical use by the physician. No attempt was made to master the whole subject, this being considered unnecessary. With such an imperfect knowledge of chemistry, the physician was not able to keep up with its development. The rapid progress of the science and its wider applications to the field of healing in all its branches could never have been anticipated twenty-five or thirty years ago, and the little preparation which the student obtained was very far from fitting him to adapt his knowledge to the new acquisitions that have been made in the last few years. Aside from certain facts that constantly came up in the daily practice, the physician's knowledge of chemistry very rapidly became a minus quantity. With modern medical education, some other course will have to be provided and something better than has been supplied. What is needed is a basis on which to build the ever-increasing structure that science demands. A general knowledge of physiologic chemistry is necessary for the physician who desires to understand modern views regarding dietetics, metabolism, etc., to say nothing of its application to therapeutics and to the action of remedies. Or take the more recent acquisitions of so-called physical chemistry. It is impossible to understand much that is published in the leading medical journals of to-day without a fair knowledge of these modern acquisitions. The young man who has a thoroughly well-grounded knowledge of the general principles of physics and chemistry will be able to understand and utilize the work and theories in this line; without such knowledge he will be more than handicapped. I refer to a thorough mastery of the fundamentals, not the mere acquisition of such chemical facts as may seem from time to time, with the progress of our science, to be of direct application to its practice and teachings. What is true of chemistry is true of other subjects that are fundamental to the science of medicine. This ideal but at the same time practical preliminary requirement, is intended to provide the student who is later to be an educated physician, with knowledge that can be used, and not to be stored up in his brain to evaporate or remain an ornament to be admired. A man who hoards up money and does not invest it judiciously so as to bring him returns is a miser, and his efforts to accumulate this

2. Annual Reports Columbia University, p. 24, 1903.

hoarded wealth are of no value to him or to anyone else. So it is with him whose education is cultural purely. It is not so-called pure culture that is needed, but knowledge. Culture develops the mind, but after all the mind is developed in mastering the natural sciences, as well as in digging out roots from the Greek grammar.

It is well to remember the difference between medicine of the recent past and that of to-day. It did not need a great amount of learning to acquire a knowledge of anatomy as it was taught a decade go, or of physiology, or of chemistry, as these were then taught. The diagnostic methods of a quarter of a century ago did not absolutely demand any scientific preliminary requirements, for the only instruments of precision used were the stethoscope, the clinical thermometer and the test tube, with two or three chemicals for testing the urine. One of the important advances made through clinical research work is in the diagnosis of diseases. By the examination of the blood we detect the parasites of Laveran, and know that we have malaria. By the examination of the cerebrospinal fluid obtained by lumbar puncture, we eliminate all doubt as to whether or not our patient has meningitis. By microscopic examination of the sputa, as well as by the injection of tuberculin, an early diagnosis of consumption is possible. Widal's test confirms our fears of typhoid, and so on. These things are learned in the medical course, you say; and so they are. But to know them and to be able to use them the student must be able to enter on the study of the branches which are the basis of these diagnostic measures with a broad education and scientific training, or he can never master them. It is almost as absurd to think of one with only a secondary school education entering on the study of the newer scientific branches of medicine of to-day, as it is to think of one leaping from simple arithmetic to integral calculus.

President Eliot of Harvard University, in a discussion in December, 1902, on the relationship of the medical school to the university, said: "I venture to say that any American university now in existence which does not require the college degree for admission to its professional schools, will in twenty years find itself in an inferior position to those universities that do require it." If President Eliot means by a college degree a full four-year college course, then I am afraid his prophecy will not come true; if he means the degree proposed by President Butler of Columbia, namely, one that is obtainable after a two-year course, which shall include work especially bearing on whatever professional course the student has in mind, then I believe he is right, except that instead of twenty I would place the limit at ten years.

THE COMBINED COURSE.

A question which is being energetically debated is that which relates to the combined collegiate and medical course leading to the bachelor and doctorate degrees. It is not very important to us as physicians how the question is settled, so long as medical subjects are not sacrificed for those which are purely academic. If the universities will give the double degree for a two-year course in the college of liberal arts, plus four years in the professional school, it will be ideal. Or, if it be three years in arts and three years in medicine, there is no objection, provided a year of the sciences leading up to medicine is covered in the preliminary three years. But I am not the only one who is fearful that in the end the medical course will be the one to be shortened in the movement now going on. We need not concern ourselves about the bachelor's degrees in science and in arts, still we can not but wonder what meaning there will be to them after awhile. Are the same degrees to be given to one who takes a full four-year college course and a full medical course, making eight years, as are given to another who covers the combined course in six years?

Nearly all the leading universities which have medical departments are now providing this combined course, and the medical course is modified only slightly, if at all, in the curricula that I have examined. If, therefore, the same recognition of the value of the professional school is given in the future as at the present, we should hail with delight this innovation in modern pedagogy. It would be still more delightful if progressive institutions like Drake University would follow the lead of the few which have already done so, and would insist on the six-year combined course, or, what is practically the same thing, demand two years of college work before admission to the professional course.

In the report of the University of the State of New York on "Professional Education in the United States," referring to the call for reciprocity of licensure among the states, occurs the following:

> **A uniform standard of admission to practice throughout the United States is impracticable at present owing to varying conditions as to the density of population, educational advantages and general development. Weak states can not maintain the standards demanded elsewhere, and strong states can not afford to lower their standards.**

I am a firm believer in the West, and especially in its educational advantages, and I know of no western state that is willing to be classed as "weak." Iowa I am sure is not. With its perfect system of primary and secondary schools, with its numerous colleges, universities and state institutions, it certainly can not be classed as "weak." Do not its people deserve as well-educated physicians as do the people of New York? Are they not willingly supplying the funds to educate their boys and girls and their young men and young women? Are they willing to acknowledge that theirs is a "weak" state, and consequently "can not maintain the standards demanded elsewhere"? It is a libel on your state to even suggest such a thing. And yet the New York report will be correct when it, by inference, classifies Iowa as a weak state medically, if your colleges are not kept up with the better ones, East or West.

Gentlemen of Drake University, it rests with your institution as much as with any other to keep the standard of medical education in Iowa up to that of any state in the Union. You have the special advantage in being located in the metropolis of the state, where the clinical facilities, if rightly used, are ample. If you keep the medical department of your university a high-grade institution, make an educational standard of admission that is equal to the best, continue to award your diploma only to those who are morally and educationally entitled to it, then will you place Iowa among the "strong" states; then will your people recognize your worth and be proud of your institution. The upward movement is surely, though slowly, advancing toward the ideal; it is for you to say whether your medical department shall be among those which are leading or among those which are to follow.

MULTIPLE LOOSE BODIES IN THE KNEE JOINT.*

JOHN PRENTISS LORD, M.D.
OMAHA.

W. C. S., a barber, aged 33 years, admitted to St. Joseph's Hospital Aug. 4, 1903. Family history negative. No history of injury nor other exciting cause. Left knee began to trouble him fourteen years ago. Had attacks of inflammation every two to four years, but later years the attacks were as often as three or four times yearly. He had knowledge of loose bodies within the joint for the greater portion of the time. They produced locking of the joint and inflammation followed. Recently these attacks have been much worse and great swelling and pain resulted. On presentation many loose bodies were easily distinguishable.

Operation.—August 5, 1903, an incision was made as for a Volkmann resection of the knee. The patella was sawn transversely, the lateral and crucial ligaments divided, which exposed the whole articulation. Four bodies were removed from above the patella. One of these was the large one of mulberry shape. Four were removed from under and beside the patellar tendon, and two from the posterior part of the joint, behind the crucial ligaments; these two were, in fact, posterior to the condyles, and much effort was required to dislodge them by the use of curved scissors. The bodies by the patellar tendon required removal by the scissors on account of pediculated villous attachments. In the localities of the attached bodies the synovial membrane was much thickened and hyperemic. On the central surface of the inner condyle the cartilage seemed fibrillated, bruised and torn, as if by the impingement of a body between the joint surfaces. The patella was wired in the approved manner. The ligaments were sutured with chromicised catgut and the skin with plain catgut. Small gauze drains occupied the dependent angles of the incision. A dry gauze dressing was used and a plaster-of-paris interrupted splint was applied, reaching to the perineum.

Result.—Healing was primary and the patient left the hospital in good condition Aug. 25, 1903. He returned to his work September 20, though he continued wearing the splint until October 4. Passive motion had been used on removal of splint at night, for two weeks preceding this time. Moderate efforts only were used to restore function. Too strenuous efforts produced irritation and inflammation and this treatment could not be pushed. On account of slow resumption of flexion function the patient returned to the hospital November 22, and under chloroform forcible flexion of knee was made, but on account of apparent separation of the lateral ligaments along the line of incision, flexion was not carried beyond a right angle. A posterior splint and an ice bag were applied four days. Splint removed December 2. Condition good. Dec. 16, 1902, patient had about 30 per cent. of flexion and no irritation in the joint. Little has been done to restore flexion function, because it was considered injudicious to put any considerable strain on ligaments the union of which was immature. A much larger range of motion is now expected, however, as a result of the more active efforts now being used to secure function.

With the knowledge that part of these bodies were behind the condyles (and being informed also that they were the principal offenders), I did not believe it to be practicable to undertake their removal without a free exposure of the joint, believing that there would be greater danger from infection and liability of failure in securing all the bodies, if full command of the joint was not obtained. Even with this advantage considerable difficulty was encountered in removing the bodies from the posterior part of the joint.

My attention was called to the use of this incision for exposure of the joint by the Mayo brothers, C. H. Mayo having reported this procedure for suppurating knee joint.[1] Further experience was reported by W. J. Mayo in a paper before the American Academy of Railway Surgeons at St. Paul in September, 1900. This method has also been used by others in treating that formidable condition, endangering, as it does, lives and limbs.

The feasibility of this procedure for facilitating the successful extraction of these bodies and insuring the success of the operation was clear to me, though no precedent could be found in literature. It is, therefore, presented at this time for consideration. While I succeeded in this single case, I am free to admit that like fortunate results might not follow sufficiently often to justify so seemingly formidable a procedure in a condition not absolutely demanding so radical a course. Discussion may reveal a better mode of procedure. It is conceded that such a mode of invasion would be rarely required, and it is not recommended when not absolutely necessitated by this condition. It has the disadvantage of precluding the early resort to manipulation so necessary in restoring the function of a joint surgically traumatized to this extent, without the result of separating the delicate union before it is sufficiently strong to withstand forced flexion. It is somewhat questionable whether completed restoration of function can be secured after such an operation. In the present case the early return of the patient to his home prevented that supervision so necessary in securing good functional results in a joint thus made liable to ankylosis.

It is not my purpose to discuss the pathology of loose bodies in the knee joint more than to say that the bodies

* Read at the Thirteenth Annual Meeting of the Western Surgical and Gynecological Association, held at Denver, Dec. 28-29, 1903.

1. Annals of Surgery of January, 1895.

in both of these cases were evidently developed from hypertrophied villi, which, in my opinion, cause these bodies most frequently. Those caused by trauma and separation necrosis, according to some authors, must be most rare. In fact, it is my opinion that these are more ingenious theories than demonstrated actualities.

WHAT SHOULD BE THE PHYSICIAN'S POSITION IN THE BODY POLITIC?*

H. BERT. ELLIS, M.D.
LOS ANGELES, CAL.

Each man, in his time, plays many parts, and the parts which should be played by our profession may well occupy us for a little while.

The logical relation of medicine to sociology has very naturally created some peculiar types of fame for physicians. Oliver Wolcott, a signer of the Declaration of Independence, who led in the foundation of medical societies and journals, is better known as a financier. Benjamin Rush, an alienist, clinician, hygienist and hospital reformer, incurred more enmity by his political conduct than he won fame by his medical science and patriotism; he was a signer of the Declaration of Independence, yet, through criticisms of the "little-great" Colonial nobodies of New England, Virginia and Pennsylvania, he created so much offense that the animosity of their descendants still pursues him, so that as yet the National Capitol has not his monument.

The quaintest instances of extra medical fame of physicians are found in Guillotin and Gatling, the inventors of the guillotine and of the Gatling gun.

It is difficult to say whether Souberbeille owes fame to being a regicide or to his genitourinary surgery in the domain of bladder calculi. He combated the crushing of calculi with as much vigor as he opposed the Bourbons; he survived the French Revolution to take part in the movement that placed Louis Philippe on the throne in 1830 as Citizen King. While Souberbeille voted for the death of Marie Antionette, he insured her better treatment during imprisonment.

It is an open question whether the fame of Erasmus Darwin, the grandfather of Charles, rests more on his medical treatise, Zoonomia, once so great a favorite in the United States, or on his poetry, still extensively quoted. Keats, who was better known as a poet than a physician, unlike Darwin, never actively engaged in practice. Many physicians who have been as eminent in other fields as in medicine might be mentioned, as, for instance, Huxley, Virchow, Weir Mitchell, Hammond and, not to be negligent, our own Bullard.

THE PHYSICIAN IN PUBLIC LIFE.

We have found that knowledge of medicine adds to the efficiency of those possessing it. That it is compatible with many things else—law, preaching, literature, painting, poetry, natural history, exploration, astronomy, invention, both in the arts of war and peace, and adds dignity, honor and usefulness to a man in any profession. But a physician who knows nothing and does nothing but his professional work, is ordinarily a poor physician, and is more likely to be at outs with the whole community. Narrowness of interest creates narrowness of mind, and no vocation needs broader-minded grasp than medicine.

Every physician should have some hobby or recreative employment or study, outside of the mere lucrative side of his profession. Every practitioner of medicine should do more or less politics, and I use politics in its broad sense, that is, to augment the strength and resources of a nation or state and to protect its citizens in their rights and to preserve and improve their laws. In this sense the physician may do much politics without being in any sense a party politician, for there is a positive and vital relationship between medicine and the scientific principles underlying social conditions and phenomena. Whenever medicine has touched politics, politics has been bettered, but whenever corrupt politics has touched medicine, medicine has been smirched.

The relation of social conditions to disease is a topic that is becoming more and more insistent, with the reflections that are the natural accompaniment of advancing knowledge, and it is incumbent on the physician to give more attention to the public health.

For a physician to neglect personal attention to civic and political problems is selfish and unjustifiable. His educational advantages, his specific knowledge of sanitary requirements, his trained judgment, his self-restraint and poise in responsible situations, his familiarity with the vagaries of human nature, and the respect shown him by his fellow-citizens, make him eminently qualified for executive work, and even leadership in civic affairs.

The man of education, brains and capability owes a certain part of his day to the community in which he lives, and to the associations with which his personal success and happiness are due. If he does not give it, he is not doing his full duty to mankind. The greater the advantages he possesses, the greater the call to serve his fellow-man. Few men, as a class, have a greater personal capacity than physicians. Therefore, few owe more to the state.

The physician should aid personally in the endeavor to raise the standard of health, education, art and honesty in the region in which he resides. Time may be required to convince his community that sanitary plumbing, pure water and compulsory vaccination pay. Men of lower ideals may deny that official dishonesty and public indecency sap the vigor of a village, town or city, and inevitably lead not only to higher taxes, but also to diminished personal safety. These truths may be inculcated while carrying on his daily professional work, and he will find that his life is more valuable to his fellow-man than that of the physician who, from laziness, carelessness or timidity, neglects his civic duty, under the pretense that his professional work is too exacting to permit such diversion of energy. The physician's work for the state must have, to be successful, the same quality as his work in medicine. Courtesy and sincerity, honesty and courage, earnestness and intelligence are as essential in the one as in the other. He must be willing in both activities to labor without thought of personal reward.

The membership of physicians on school boards is an undoubted advantage to the public. First, physicians are better able to co-operate and work with the local boards of health, and are, therefore, better able to demand proper sanitary conditions in school buildings and grounds; second, because of the nature of their work, they are better able to comprehend the necessities of the scholars in regard to seating and desks; the tinting of the walls as affecting eyesight; the necessity for correctly lighted rooms, and that the wall boards should not be black. The physician is in a position to insist

* President's address at the Thirty-fourth Annual Meeting of the California State Medical Society, 1904.

that the curriculum shall be somewhat elastic, as all children have not the same mental development or capacity. No one is in a better position to judge of the evil effects of child labor, not from the sentimental, but from the physical standpoint, and, therefore, he will be in a position to ask for compulsory educational laws, and see that they are lived up to.

There is a feeling abroad, occasionally expressed by physicians and newspaper writers, that there is overpressure in the schools to such extent that children are falling by the way or are made invalids for life. There is another opinion, expressed quite frequently by opponents of the new education, that teachers are doing too much for their pupils, and are thereby helping to create a race of degenerates. "Soft pedagogics" is the term sometimes given to designate the process. Widely divergent as are these criticisms of the present practice in the schools, there is perhaps enough truth in both charges, to put teachers on their guard in respect to the demands they make on their pupils. Viewing the matter solely from the standpoint of health, we may agree that hard, intellectual work of the right kind, done within proper limits of time, can in no way be injurious to children. It must be as healthful for them to exercise the brain actively as it is for them to exercise the legs actively. It is not hard work that is harmful or repugnant to the normal child, so much as work which is not suited to his needs and powers. Of course, a discrimination must be made between the natural tendencies of the child and those tendencies which have been imposed on him; the former may lead and point the way of the best training, while the latter may indicate the course to be resisted. What is needed for health's sake is not necessarily to lessen the work of the children, but to lead them to work in such a way and at such times that the largest results in mental strength and alertness will be gained with the least fatigue.

Some study cheers and invigorates, while another palls on the mind and wearies it to the point of stagnation. No one will say that the former is nearly so harmful physically as the latter. The two states of mind needed for the physical as well as for the mental well-being of pupils are interest and freshness, the former depending largely on the subject and the way it is presented; the latter on the time in which the recitation or study is carried on.

SANITARY ADMINISTRATION.

In America, we know sanitation and social progress as the power that condemns rookeries; restricts builders; regulates hours of labor and the age of laborers; builds hospitals, public baths and lodging houses; sets aside great areas for parks and playgrounds; establishes sanitaria for consumptives; inspects factories and mines; defines dangerous trades and prescribes territorial limits to those that pollute streams or air; compels vaccination; certifies physicians, dentists, druggists and barbers; quarantines the sick on land and sea, separating mothers from children; condemning property, if need be; rejects immigrants; enters lodging houses, and even dwellings, to determine their sanitary condition; prohibits the adulteration of foods and medicines and penalizes the sale or offer for sale of impure foods for man and beast; presumes to name certain fuel as unfit, and spends millions for waterworks, sewage farms and the support of health departments.

No one community has carried out a consistent and thorough program, but no community has failed to accept the principle that the public has the right and the duty to remove and to prevent disease or conditions that generate disease. We may differ in our theories of disease, or in our belief as to the exact time and place where the public funds shall be used, but we are of one mind that private wealth, private ignorance, private comfort must be of secondary importance, when and where public health is at stake.

Sanitary administration offers a very direct and most efficacious means of reducing the inequalities that even the most conservative capitalist will concede to be incident to our present system of distribution. The meanest wage-earner has already come to associate his health with his capital; his lodge, his creditors and his insurance company are emphasizing that relation. None is so mean as not to wish a higher standard of life. Nothing is easier to demonstrate than that wide and clean streets, playgrounds, hospitals, public baths, tenement and factory inspection help to raise his minimum standard with no sacrifice to himself. In no other field have conservative thinkers and communities taken such advanced ground; conversely, no other field offers so little theoretical opposition or so little prejudice. No other field of administration can demonstrate so quickly and so readily on the platform or by actual test, that there is taxation which benefits without burdening the majority.

In watching contagious diseases in the public schools, it is a great advantage to have the medical inspector directly under the control of the board of education, and not under the board of health, since only about one-seventh of the cases of contagious diseases in the public schools are reported by the health department. Chicago has a rule that when pupils are out four consecutive days, they are excluded until they have been inspected by the proper authorities. They are not accustomed to admit children on the certificate of the attending physician, because such certificates they consider utterly valueless, for the reason that physicians can not easily refuse giving certificates, their livelihood being at stake in many cases.

THE STUDY OF HYGIENE.

It is believed that American philanthropists, whose purses have so often and so generously opened to advance the causes of human knowledge and welfare, have failed to appreciate the opportunities which have lain before them in promoting the cause of sanitation. Every school, college and university should have a carefully developed course of hygiene. Every parent who sends a son or daughter to these places of education has a right to expect that this fundamental subject of life and health shall not be neglected. Competent teachers are needed to instruct the children and youth of the land in the practical business of living wholesome and healthy lives. Sanitary engineers are needed to build sewers and waterworks, drain lands, and lay out and clean cities in accordance with modern principles. Sanitary architects are needed to build healthy dwellings, hospitals, schools and factories, so that the great class of people who are unable to look out for themselves, shall be suitably cared for. Medical officers of health are needed who shall be familiar with the most recent developments of preventive medicine, and who shall be thereby equipped with the best methods of investigation and removing the cause of epidemics. The family physician should be given knowledge, which, as President

Eliot says, shall make him the guardian of his clients in the prevention of disease.

University students are but rarely compelled to study sanitary science, and it is entirely possible for a graduate receiving the highest honors to know next to nothing of the laws of health, on which his very existence depends. But if school children, teachers and university students find a lack of proper facilities for the study of hygiene, what is to be said of the training of that important class of officials charged with the responsibility of guarding public health? As a rule, no training whatever is required of health officers by law, and no provision is made by municipality or state for their instruction.

Excepting Vermont, and in a few other states, it is impossible for health officers to obtain any preparation for their work, except such as they may themselves elect in special courses of instruction in the latest practices in sanitation and preventive medicine. The requirements which must be satisfied before the English degree of D.P.H. is conferred, indicate the character of the training, which, in the opinion of the committee of the American Public Health Association, it is needful for this class of experts to obtain. As at present constituted, the requirements of the English diploma in public health stipulate that the candidate must be a physician, and have had six months' scientific training in hygiene, including sanitary law, sanitary administration, laboratory instruction in sanitary chemistry, bacteriology and the study of preventive diseases. In addition, he must have served six months as an assistant to a medical officer of health.

Dealing with disease is much more complicated than dealing with crime. Our individual danger is ten times greater from epidemic than from murder, robberies, accidents and fires; yet, as a rule, our police and fire departments excite our admiration, while our squad of health inspectors more often arouse our anger and opposition.

Physicians are said to be deficient in business instinct, training and methods, but much depends on the individual. There are many so-called business men who seem to know but little about business, if we would judge by the number of failures and those who go out of business.

The entrance of physicians and scientific men into deliberative assemblies must do good, for the increasing accuracy of science can not fail to make its impress felt in shaping legislative policy. Sanitary and hygienic problems are of ever-increasing importance in national life, and physicians have the general training which makes their views on these subjects of much weight. The interests of commercialism and science may seem antagonistic, but in the broadest sense they are not.

VITAL STATISTICS.

It should be almost unnecessary to recount to a society of physicians the numerous reasons why an accurate registration of vital statistics is absolutely essential to the proper sanitary administration of a state. Vital statistics, and especially correct mortality statistics, are fundamental to a progressive public-health administration. It is as unsatisfactory to attempt to conduct a public-health service, either of a city, a state or a nation, without reliable statistics of mortality based on the immediate registration of all deaths, as they occur, as it would be to manage a large business enterprise without some adequate system of bookkeeping. To know the influence of modern methods of sanitation and prevention of disease on the public health, the statistics of deaths must be accurately known. The progressive health officer must be on the alert to watch the movement of mortality from important diseases, and he can only judge of his success at restricting the same by studying variations in mortality and in sickness.

Reliable records of births are almost of as much importance as are those of deaths. The state owes it to the individual citizen that an accurate record shall be made of his birth and his death. Such records are indispensable for many legal purposes. As regards birth records, there is hardly a relation in life, from the cradle to the grave, in which such a record may not prove of the greatest value. For example, in the matter of descent and inheritance; in the relations of guardians and wards; in the disability of minors; in the administration of estates; the settlement of insurance and pensions; the requirements of foreign countries in matters of residence, marriage and legacies; in marriage in our own country; in voting and in jury and military service; in the right to admission and practice in the professions and many public offices in the enforcement of laws relating to education and child labor, as well as to various other matters in the statutes. As the country becomes more densely settled, and the struggle for existence sharper, many of these matters which have hitherto been of minor significance, will take on a deeper meaning and acquire greater importance.

Nearly every state in the country has attempted to establish a satisfactory system of recording vital statistics, yet up to the present time less than a dozen have adequate laws for the registration of deaths alone, and I believe that there is not a single state, and probably not even a single city in the United States, that has to-day a complete registration of births. This should receive the attention and the active support of every physician in the state, and especially the consideration of our members and our county societies. I therefore recommend to this society that a committee of three be appointed on vital statistics, to co-operate with the Public Health Committee of the American Medical Association.

The executive business of medical schools, hospitals and societies devoted to medical subjects is what may be, and frequently is, termed medical politics. Here the physician has frequent opportunity of showing his skill in carrying on business enterprises, and may exercise the talent of leadership. His success is probably equal to that obtained by men of equal ability in any one other walk of life. He may lack the training of one brought up in an office or bank, but his stock of general information, his knowledge of human nature, his judicial mind, and his habit of scientific accuracy, will soon enable him to equal, if not outstrip his non-professional colleague, in executive grasp and precision.

MORE THOROUGH TRAINING FOR PHYSICIANS.

What is essential that the standard of the medical profession be raised and that the physician become a more potent factor of usefulness in the community? Of the students attending professional schools in 1900, 50 per cent. of the theological students had an academic degree; 20 per cent. of the law students and only 7 per cent. of the medical students. Ordinarily, the degree of preparation one has on entering a professional school, represents the character of work he will do in that school. One can not expect to secure physicians wise and

comprehensive in diagnosis, keen to discriminate, able to weigh evidence and to relate every fact to every other fact, unless the students who enter the medical colleges are themselves well trained. In professional studies the beginning determines the end, and the end also determines the means and the method; he who is not a good student when he enters the professional school, will not ordinarily be a good student when he leaves it; and if he is not a good student when he leaves the professional school, he will not be a skillful physician when he begins his professional career. The medical profession, as already indicated, is important not only to the individual life, but also to the life of the whole community. The physician should become a public servant, as well as a servant of individuals. He is now set not simply to cure the ills of one member of the human race, but also to keep all men from being sick. He is a trustee for the health of the community. He should be the apostle of health and healthfulness. He is an unofficial member of some unofficial board in every community, and in not a few communities he is a member of the properly constituted board of health. The age of specialists has come, but every general practitioner must, in a sense, be a combination of all the specialists. So wide a range of functions, each of which is of peculiar importance, as important at times as is human life itself, makes very evident the proposition that the physician should have the most liberal, the most profound and the most disciplinary of trainings before he enters on his professional studies. And further, Americans should be in touch with the best methods of the most advanced nations, and our standards should not be lower than those of European countries.

It would be a distinct advantage to American life if the students who have stepped from the farm or the grocery store into the medical school, would return to their farms or their counters. Discipline, as well as culture, training as well as intellect, represent elements which every man who dares to offer himself as the savior of people's lives should possess. One great need of American life at the present time is better trained doctors. The more thorough their training, the better fitted will they be to assume their obligations as citizens in the higher fields of civic usefulness. The mind which has already been sharpened by the methods of one science, takes a keener edge, and that more quickly, when it is put on the whetstone of another science, than does a mind which knows nothing of science, for all sciences are cognate, their methods, though different, are allied. Our profession has been the mother of most of the sciences, and her children are ever coming back to help her. In our art, all the sciences seem to converge—physical, chemical, biological methods join hands to form the complete clinical method.

If the proper organization of physicians existed, a health officer, Democrat or Republican, doing a city such service as to reduce its death rate from 23 to 1,000 per year to 15 to 1,000 per year for successive years, or fighting the dangers of a pest epidemic, would not be turned out of office for partisan reasons, as was recently the case in the city of Buffalo and in our own city of San Francisco.

Very recently, Reed and Lydston have clearly pointed out the fact that medical men have fallen from their high estate of bygone years, and are no longer looked up to and regarded as the leaders in every community. That much of this change in public attitude toward members of this profession is due to the dissensions within our own ranks, there can be no doubt. The influence which the physician of fifty years ago possessed, has dwindled to a mere shadowy suggestion of influence possessed by the doctor of to-day. Instead of in any way controlling the quality and standards of the medicines supplied for our use, we are now become very largely the exploiters of such material as the manufacturer cares to place on the market. Instead of having that representation within legislative chambers which would insure proper protection of the public welfare, we have little or no representation and comparatively no influence. One of the keenest and ablest lawmakers in the land has said that the medical profession could secure any legislation which it demanded, state or national, if it only knew exactly what it wanted and could agree in making the demand.

PHYSICIANS AS LEGISLATORS.

The time has come when we must recognize our duty to the body politic; our duty to the people whose servants we are; our duty to our patients; our duty to ourselves and to our progeny; our duty to the coming generation by taking that place in the affairs of the state and nation which good government, good sanitation, good health laws and proper protection of the public welfare demand. The "Doctor in Politics" must become an established fact and must become a recognized necessity. It is time that at least one representative form every state in the Union should be a member of the medical profession, and that there should be a good number of physicians seated in the Senate. We have too long been like the foolish man in the parable, who buried his talent, carefully wrapped in a napkin. Let us dig up these talents of potential strength and influence and invest them as they should be invested—in the political part of our duty to the people we serve. Let us at once begin to work for that place in our state and national legislatures which the care of the public welfare demands that we should have. To sit quietly back and see inefficient or morally bad men elected to legislative offices and making laws which are worthless or positively and actually injurious to the public, is to neglect that part of our duty which is most essential. The plea that the physician is too busy to take any part in politics is an empty phrase. No physician is too busy to drop a word here, a request there, a hint with another patient, a suggestion to a friend, as he goes about his day's work; and when that day's work is accomplished, and the hints and requests and suggestions are considered, he will realize that much has been done with comparatively little effort.

There are two essential requisites, however, in the perfection of the physician's influence and position. First, he must ever be a better physician. A higher standard of preliminary education must be required, and the resultant product of our medical schools must possess a far higher average of general as well as medical education. I would recommend that our committee on medical education consider carefully this matter, and place itself in close communication with the similar committees of the American Medical Association and of other state associations, to the end that the matter may be carefully and earnestly gone into and the proper recommendations eventually made. It must not be forgotten that a physician of fairly good average education to-day is relatively far below the standard which he would have held, with no more education, fifty years ago. The general average of edu-

cation has increased faster than has the standard in our own profession.

THE NEED OF ORGANIZATION.

The second essential to proper advancement and political recognition is organization. We must have a well and a harmoniously organized medical profession before these many things can be brought about. We must work for the good of all, sinking local feeling, petty ambitions, personal differences and animosities, and sticking close to the central organization and central purpose. Each and every one of us must jealously guard the honor of our profession and the solidity of our organization. Every eligible physician in every county of the state should be a member of a county society and should work with and for his fellow-members. The actual conduct of any enterprise must necessarily fall on the shoulders of a few in committees or boards. But the work of the individual member in aiding such committees is invaluable. When your committee says to you "Write to So-and-so a request to take action on such a matter," it is only after knowing what the full conditions are and what can best be done by your help. Do what you can, remembering that it is always the weight of influence which counts, and that if every member of the society acts, we shall bring to bear the weight of more than 1,500 of the most influential class of men in the state.

If there is, in your county, a physician whom you know is not a member of your county society, make it your business to see him or write to him and urge that he immediately apply for membership. Do not wait for the trustees or the council to do this work, but do it yourself and do it at once. An inconvenient location should no longer be regarded as an argument against joining the society, for members now receive the publications and are kept in touch with each other and with the work that is being done. And further, even if a physician is located in a place so distant and inaccessible that he could not attend the meetings of the society, he could add to its importance in the community by the weight of his influence when it is needed. No man knoweth the day nor the hour that such influence may be essential to the successful termination of some issue intended for the good of all.

The California State Journal of Medicine has done excellent work in prosecuting this work of organization, and I commend to you and to your delegates the importance of continuing it in the policy which it has adopted. To the trustees of the council I would earnestly urge the necessity of making every endeavor to even more energetically prosecute the work of organization, and to consider ways and means for working on the physicians residing in counties where there are county societies, yet who remain non-members of such organizations. The time is here; the work is ready and waiting; our duty is writ plain for every man to read; let us then be cowards no longer; let us turn to the work and do it; let us take that place in the affairs of state and nation which it is essential we should take.

School Athletics.—It is certainly time to supervise school athletics more closely, says the *Boston Medical and Surgical Journal*. The possibilities of injury are many, and the manifestations of overwork or overexertion may not be apparent for months or even years. If present conditions continue, they will inevitably bring discredit on the interscholastic games.

Special Article.

THE ARMY MEDICAL DEPARTMENT.

I.

A HISTORICAL SKETCH.

The Medical Department of the United States Army had its beginning on the 27th of July, 1775, when the Colonial Congress at Philadelphia voted a medical establishment, or, as it was then called, "an hospital," for the Army. Prior to this enactment the surgeons of the forces before Boston had been appointed by the colonels of regiments, with the wise proviso, however, on the part of the Provincial Congress of Massachusetts that they should be examined by a medical board named by the Provincial Congress. Of course, among these surgeons there could be no cohesion or effective co-operation, and, as General Washington wrote to the Congress at Philadelphia, affairs were in a very unsettled condition. "There is no principal director nor any subordination among the surgeons; of consequence, disputes and contentions have arisen, and must continue until it is reduced to some system."

The first department consisted of the director general and chief physician, four surgeons, twenty surgeons' mates, an apothecary, a clerk, two storekeepers and a nurse to every ten sick. It may be of interest to mention that the pay of these officers was as follows: The director general, $120; the surgeons, $40; the surgeons' mates, $20; the storekeepers, $4, and the nurses, $2 a month.

Dr. Benjamin Church of Boston was elected director general, and he was given the appointment of all the personnel of the hospital, except the surgeons' mates, who were appointed by the surgeons. Dr. Church had a reputation for culture and professional skill, but was a few months after his appointment detected in treasonable correspondence with the enemy, deposed and thrown into prison. He was succeeded by Dr. John Morgan of Philadelphia, a man of much energy and administrative ability as well as professional skill. He soon gained the friendship and support of General Washington, and these he always retained.

With the extension of the theater of war, the number of surgeons was increased, and Drs. Skinner and Shippen were named chief surgeons for the northern department and the forces on the west bank of the Hudson. The organization was, however, too loose to secure efficiency or concert of action. The relations of the regimental surgeons to each other and to those in charge of the general hospitals were entirely undetermined, and the department surgeons refused to admit the authority over them of Dr. Morgan. There was beside no well-arranged system of medical supply, and in consequence there was much suffering, and complaints multiplied. As has happened since, more than once, Dr. Morgan was punished for the very shortcomings for which he had in vain asked Congress to provide a remedy, and he was dismissed in January, 1777. Congress the next year exonerated him from all blame, but did not reinstate him.

A complete and elaborate organization of the medical department, modeled on that of the British army, was adopted in April, 1777, and Dr. William Shippen was elected director general of the new establishment. Deputy director generals were provided for the northern and southern departments, and under these a physician general and surgeon general in each district, "whose

business it shall be to superintend the practice of physic and surgery in all the hospitals of the district." This separation of the practice of physic and the practice of surgery, which obtained in Europe at that time, and in England, has, in civil life, lasted until the present day, necessitated a most cumbrous and awkward dual organization, which soon disappeared under the rudely practical test of war. It is probable that most American physicians at that time outside the larger cities practiced surgery to some extent, in addition to the practice of physic. The regimental surgeons seem from the first to have combined the two arts, and we find in the bill, which, in 1780, reorganized and simplified the medical establishment an explicit provision that "there shall be three chief hospital physicians who shall also be surgeons, one chief physician who shall also be a surgeon, one chief physician who shall also be a surgeon to each separate army, fifteen hospital physicians who shall also be surgeons," etc. But although the medical officers of the Army thereafter appeared to have been both physicians and surgeons, the former title seemed to have been rather reserved for the higher grades, while the title "surgeon" became by the end of the Revolutionary War generic for all medical officers.

At the end of the Revolution the Army was disbanded, except fifty-five men at Fort Pitt and twenty-five at West Point to guard the military stores at these places. The officer highest in command was a captain, and the medical department was reduced to the vanishing point. The Revolution had produced a number of distinguished military surgeons, among whom were Cochran, John Warren, Craik and Tilton, in addition to those already named. The pressure of Indians on the western frontier after a few years prevailed over the morbid fear of a regular army with which our ancestors of a century ago were possessed, and in 1789 a regiment of regular infantry and a battalion of artillery were organized, with a medical service of one surgeon and four suregons' mates.

The War of 1812 brought an army again in the field, but as the medical department was without a head and the surgeons had not even assimilated rank, good medical administration was impossible. In March, 1813, Congress created the positions of physician and surgeon general and apothecary general, the latter to act as assistant to the former, and as medical purveyor. The surgeons were divided into hospital and regimental surgeons, of which the former were superior in rank and pay. Both had mates or assistants, and there were in addition post surgeons who ranked with the mates.

The title of surgeon general appears first in the Act of May 14, 1818. Joseph Lowell was appointed to this position, and in that year he made the first annual report of the surgeon general to the Secretary of War, and also drew up a set of regulations for the medical department. He remained for eighteen years at its head, and during that time by his ability and force of character, shaped and organized the corps of army surgeons into a coherent and efficient medical staff. He was succeeded by Thomas Lawson, a man of strong character and fine professional and administrative abilities, and withal a brave and ardent soldier, and a most original character. He entered the Navy in 1809 as surgeon's mate, but left that service for the Army in 1811. His service as a medical officer of the Army covered the remarkable period of fifty years and three months, and included active and distinguished service in the War of 1812, the Indian Wars and the Mexican War. When he became surgeon general, in 1836, medical officers were without military rank, and in addition to the great disadvantages of such a status, suffered frequently from the insolence and contempt with which the line officers of that day, following the traditions of the British service, were inclined to regard the medical profession. Surgeons, for example, were not entitled to a salute from enlisted men, and when serving on boards were ranked by the youngest subaltern in the service. In the new uniform, adopted in 1839, they were allowed a sword, but not the officer's epaulettes, an aiguilette being prescribed instead; "a piece of tinsel on one shoulder," as Lawson contemptuously described it.

To establish and maintain the dignity of his profession and his corps, was to Thomas Lawson a sacred mission, to which he devoted himself with such courage, pertinacity and keenness of wit that he achieved success in all the important claims advanced in behalf of his corps, culminating in the Act of Feb. 11, 1847, which conferred on medical officers the assured and honorable status of definite military rank. It is a tradition in the service that on the passage of this act the grim old fighter sent around to medical officers a confidential circular to the effect that now that they had the status of officers they must promptly challenge any other officer who failed to show them proper respect.

The medical service of the Mexican War seems to have been performed with the same efficiency, courage and devotion to duty which marked all the operations of the small but glorious armies under Scott and Taylor, and such men as Satterlee, Tripler, Simpson, Cuyler, Wright, Moore and Barnes laid in it the foundation of reputations which were destined to grow under the far wider responsibilities of the Civil War. In the fierce assault of Molino del Ray, Assistant Surgeon William Roberts was killed and Assistant Surgeon James Simons was wounded.

The thirteen years which intervened between the Mexican War and the outbreak of the Civil War were years of activity and progress for the medical corps, although the Utah Expedition against the Mormons in 1858 was the only military event of note. An important advance in the standard of the examination for admission was made in 1849, when a knowledge of Latin, of physics, of practical anatomy in the form of dissection, and clinical experience acquired either in a hospital or in private practice were made prerequisites. In 1850 the Medical Department of the Army was first formally represented at the annual meeting of the American Medical Association.

(To be continued.)

Oxygen as Aid in Labor.—Dr. G. Lapenta, New York, has found that inhalation of oxygen is a most valuable aid in labor. It relieves the dyspnea and cyanosis and induces anesthesia to a certain degree, all the functions returning nearer to normal and the progress of delivery benefited in consequence. In his article on the subject in the New York *Gazetta Medica* for March, of which he is the editor, he states that the results have been invariably brilliant in more than 50 cases in which he has used the oxygen as an auxiliary for the uterine forces. The labor pains were always materially reduced in intensity while the contractions of the uterus became rhythmical and more energetic. The patients afterward feel better instead of being depressed as when chloroform is used. The oxygen evidently has a favorable influence on the entire nervous system and revivifies the nerve centers, which in turn react on the muscles. The new vigor is accompanied by a slight, transient anesthesia, sufficient for the purpose desired.

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THE NEXT STEP IN ORGANIZATION.

As the date of the annual session of the Association rapidly approaches, some observations on the new form of organization become pertinent. The American Medical Association is indeed and at last what the name implies. The medical profession of every state now has equal voice—proportionate to its numerical strength—in the affairs of the Association. The House of Delegates is a truly American representative body, made up of men elected to do the will of their constituencies—the state medical associations. The experience of the last two meetings has amply demonstrated the working value to the profession of the House of Delegates. A moderately small representative body of picked men really deliberates on and carefully disposes of many of the practical medico-social, medico-legal, medico-political and medico-material problems constantly puzzling us as a well-defined professional unit in the social order of the age.

In the majority of the states the profession has with avidity adopted the uniform plan of organization for the state medical association. In some states practically the same method of organization has been in force and under trial for years. The test has proved it suitable to the needs of our profession. By a few the new form of organization is spoken of and written about as an "experiment"; not, however, by any one familiar with the medical history of Alabama, of Connecticut, and of two or three other states. It is only a well-tried expedient lately adapted to the American Medical Association and to the state medical associations that had not already adopted it.

It is particularly desirable at this period to remind ourselves of certain fundamental features of the plan of organization that have an immediate practical application. Of these, the chief one is the independence and basal importance of the county medical society. This is now the sole unit of organization and the only arbiter of membership in the organization. The state medical associations have for members all the physicians whom the county societies in their respective territories deem eligible to medical fellowship. The business of the state associations is conducted by a delegate body chosen freely by the county societies in true American fashion. This state representative body, beside having charge of the material interests of the profession of each state, also elects delegates from the state association to represent the state in the House of Delegates of the American Medical Association.

Therefore, it follows that the county medical societies of each state conjointly and directly determine the whole policy of the profession of their state toward a multitude of important practical problems, and indirectly they now just as certainly control the course of the American Medical Association. This is the great new fact of our present system, and it should be well learned and thoroughly appreciated. By instructing its delegates, by memorial, by conjoint action with other county medical societies, whereby it is determined that the delegates from that state to the American Medical Association shall follow some certain predetermined course, the county medical society is in position absolutely to control the great national organization.

All this is but drawing attention to the fact that at last we have a coherent and effective and truly representative form of organization.

Finally it follows that now is the time for the state medical associations to determine what they wish the American Medical Association to do this year. It is time to draw up, consider and adopt resolutions and memorials asking the American Medical Association to give attention to whatever may be considered as pressing problems. The time has come to see that the delegates from the state are instructed to register the will of the profession of the state in the national House of Delegates. In the assumption of these functions the county medical society finds itself a real power in medical affairs, because all its members are members of the state association, and because its delegates share in the election of delegates to the American Medical Association. It is no longer local and provincial; it has a voice in the affairs of the medical profession of America. The destiny of the profession is in its hands. It determines who shall be the "members" for scientific purposes of the state association and also of the American Medical Association. By close organic affiliation with other county societies it makes the state association a great and powerful organization.

The county medical society, then, absolutely and directly determines the membership of the national body, and through delegates elected in proper representative form and through its members acting as the state association, it wholly controls the business side of the national Association's activities. Submit these facts to your neighbor who does not belong to your local society and who is eligible. Let him see that medical societies are real living organisms, registering the will and expressing the sentiment of the medical profession. See to it that your local society makes the state delegates ask the assembled delegates from all the state associations to do that which you think should be done for the good of all physicians by the representative medical organization of America.

ARTIFICIAL IMMUNIZATION AGAINST TYPHOID FEVER.

A safe, harmless method of artificial but active and consequently more or less permanent immunization against typhoid fever would be a most valuable addition to our other means of prophylaxis. In times of war, and in the case of sudden epidemic outbreaks, due, for example, to the unexpected contamination of the water supply of a city, much good might be accomplished by means of artificial immunization. Then, again, nurses and attendants on typhoid patients are exposed in so many ways to infection that a certain number fall sick in spite of the greatest care. Of 35,647 cases of typhoid fever collected by Schüder, 1,179, or 3.3 per cent., occurred among nurses and attendants.

Various methods have been proposed for the purpose of securing an active immunity without danger and with as little disturbance as possible of the health of the individuals. As in the case of pest and of cholera, cultures killed by heating to 60 C. or so have been used mostly, Kolle in 1896 being the first to give such injections to human beings in whom there developed, to at least the same degree as in convalescents from natural typhoid fever, the same reactions of immunity as in animals actively immunized. Prophylactic injections on a large scale have been carried out by Wright among British soldiers in India and in South Africa, the resulting statistics on the whole being favorable to the method. Unfortunately, the general as well as local reactions following the injections by Wright's method were rather severe.

Recently Bassenge and Rimpau,[1] as well as Wassermann,[1] have studied this question, particularly with the view to technical improvements of the methods and to elimination, as far as possible, of the reactive symptoms, local as well as general. Bassenge and Rimpau used heated bacillary suspensions. Three injections were given, the first containing approximately one-fifteenth of a milligram of an eighteen-hour agar culture; the second one-seventh and the third one-third. In each case the total quantity injected was 1 c.c. The effects were studied carefully in eight persons. The general reactions were rather mild, varying somewhat in different persons, the climax being reached in six to eight hours. The local reaction consisted of swelling, redness and a little pain. In no case were the effects at all serious, the symptoms lasting less than twenty-four hours. The agglutinative and bacteriolytic properties of the serum were tested before the injections, and several times afterward. In each case a marked increase in these properties developed, becoming equally as marked as in typhoid convalescents, if not even better. The bacteriolytic power (Pfeiffer's immunity reaction) was determined by finding the minimum quantity of serum able to protect guinea-pigs against fatal quantities of typhoid bacilli injected intraperitoneally. Nothing definite can be said as to the duration of the immunity conferred in this way, because the observations have not been carried out long enough as yet.

Wassermann points out that practically all experiments along this line have been governed by the idea that the more virulent the cultures used for injections the more pronounced would be the resulting immunity. His experiments on animals, however, show that virulence is no real indication of the immunizing power of a typhoid bacillus; the degree of immunity depends on the power of the particular culture to unite with the cell receptors (which is in full accord with Ehrlich's theory), and this power may be more or less independent of virulence as ordinarily determined. In order to secure a permanent material for immunization and accurate dosage, Wassermann recommends a powder obtained by evaporating in vacuum the fluid which results when typhoid bacilli in suspension are killed by heat and allowed to digest themselves (autolysis). He also suggests that several strains of bacilli should be used in preparing this powder, so that the resulting immunity may be "polyvalent," that is, directed against as many bacillary strains as possible, because different strains may not all be susceptible in equal degree to the antibodies present in immunized persons. These suggestions also apply to artificial immunization against cholera.

From this brief review it is seen that a good experimental basis is being laid for a practical, harmless, artificial immunization of human beings against typhoid fever. Wassermann's improvements of the methods, which so far have been tested only on animals, should be carried into effect in a carefully conducted series of experiments on human beings. We believe that there is a definite though somewhat restricted field for this form of prophylaxis, which now promises to be both simple and effective. It would surely prove welcome to physicians and laboratory workers, whose duty may bring them into close and prolonged contact with typhoidal patients and typhoidal materials of all kinds.

1. Festschr. z. sechzigsten Geburtstage von R. Koch, 1903, pp. 315 and 526.

PROTOZOAN PATHOLOGY.

American medicine is just now experiencing a boom in protozoa. Following the work of Gaylord and the New York State Board of Health Cancer Laboratory, urging as the most probable cause of cancer certain bodies resembling protozoa, we have had the reports from Councilman and his coworkers in Boston concerning the protozoan etiology of variola and vaccinia, and also the observations by Mallory of certain structures in the skin in scarlet fever, which he considers probably protozoa, and to which he is inclined to ascribe etiologic importance. In Ann Arbor, Novy and McNeal have succeeded in cultivating the trypanosoma, an important step in the study of parasitic diseases. Wilson and Chowning have apparently found the cause of the peculiar and fatal spotted fever of Montana to be an organism of the same sort. Again, the demonstration by

Reed and Carroll that the causative agent of yellow fever is transmitted by an intermediate host, strongly suggests an animal origin for this disease, and by inference a protozoa.

Yet with it all there has been much indecision on the part of the medical public as to how much importance is just now to be attached to the numerous reports of discoveries of causative agents among this group of animal forms. We have so long and so often heard the cry of "protozoa," and failed to hear any corroborative chorus, that it is not surprising that the conservative man is inclined to be more skeptical toward claims for protozoan etiology than he would be toward bacteria. Indeed, it often seems as if everything possible had been saddled on the bacteria, and that all that is left, from measles to sleeping sickness, is to be credited to the animal kingdom. The nature of the protozoa is such as to make them much less satisfactory subjects of consideration than the bacteria. Because of their inability to grow on culture media, with a few possible exceptions, it is impossible to impose the satisfying requirements of Koch. Because of their delicate structure, variability and particularity toward stains, and especially the manifold forms that they may assume during their life cycle, it is difficult or impossible to fulfill even the first of these requirements, viz., that the suspected organism be found in all or nearly all cases of the disease. And, so far as experiments show, they are probably more limited as to the variety of hosts in which they can grow than are most of the bacteria. Therefore, the best possible proofs that we are likely to have of the specificity of any protozoa will probably always appear weak when compared with the proofs available for the bacteria. At the present time we are limited to morphologic studies, either of the tissues and blood of the infected animal or during the life cycle in the body of the intermediary host, and morphologic proofs of causative agents are far from satisfactory.

American investigators have been fortunate in being able to enlist the services of Professor Calkins of Columbia University, who, having studied these forms of animal life previously from the standpoint of the zoologist, is able to attack the problems from a different point of view and action than the pathologist. He is, therefore, not influenced by the same bias which possibly might hinder the progress of the medical scientist, nor is he guided by the same line of experience. His conclusions are, therefore, of peculiar interest, and they are set forth in the "Fourth Annual Report of the Cancer Laboratory of the New York State Board of Health," with which laboratory he is officially connected as consulting biologist.

As is well known, Professor Calkins has collaborated with Dr. Councilman in his studies of the "smallpox organism,"[1] and is fully convinced of the certainty of its etiologic importance. In his own words, "the question as to the specific organism of smallpox is no longer open to doubt." With this statement, however, there are many pathologists who will take issue, for however weighty the arguments of these observers may be, the story is by no means complete; and until it is, many fairly conservative men will assume the privilege of skepticism, no matter how much and how sincerely they hope that the honors of the successful presentation of the cause of smallpox may fall on an American, and on so deserving a one as Dr. Councilman. The bugaboo of "artefact" is always present in these morphologic studies, in which fixed and stained specimens must be used, and even with the variola organisms Professor Calkins admits that "owing to the small size of certain stages and absence of differentiation, I can not always distinguish them from artefacts." Yet the other features present are sufficient to convince him, as a zoologist, that the *Cytoryctes variolæ*, described by Guarnieri, and worked out in certain phases by Councilman and his associates, is the actual cause of smallpox, and also that "many other diseases belonging to the same group as smallpox (the exanthemata) will, in all probability, be shown to have a like etiology."

Carcinoma also appears to him to represent a result of protozoan invasion, and what he seems to consider as an important obstacle in the discovery of this cause is suggested in the following: "Inclusions in carcinomatous tissues should be studied by specialists trained to the study of protozoa, and not left exclusively to pathologists, many of whom regard all structures which are to them incomprehensible as some type of degeneration product of the cell." This is certainly a point well taken, although there will be a ready retort from the pathologists that the zoologist is fully as ready to call almost any sort of cell inclusions protozoa. The work already done on the morphology of cell inclusion in cancer seems to Calkins "to justify the provisional assumption that these cell inclusions are neither secretions, as Greenough describes, nor degeneration products of the cell, as most pathologists very generally describe, nor are they modified centrosomes and spheres, as Borrel maintains, but phases of an organism belonging to the group *Protozoa*. This is based on the discovery, not only of ameboid forms inclosed within the characteristic capsule which is typical of the so-called 'Plimmer's bodies,' but on reproductive phases, on nuclear changes and on characteristic morphologic protozoan structure." That the question of the etiology of cancer is far from settled, is indicated by the following statement: "While such structures justify the provisional assumption of a protozoan organism in cancerous tissue, they do not justify the contention that their presence is the cause of cancer, nor is there enough evidence as yet to indicate in what group of protozoa the possible organism belongs." An interesting point is made that it is not absolutely essential that such parasitic protozoa should

1. See The Journal of Medical Research, Feb., 1904, for the full report of the work of Councilman and his associates.

possess a nucleus of the ordinary type, it being possible that living as intracellular parasites there is no need of a functional nucleus, except for reproduction, any more than a tapeworm has need of a digestive tract.

EXPERIMENTAL THERAPY OF TRYPANOSOMIASIS.

Recent investigations have shown that animal parasites called trypanosomes cause important diseases among domestic animals, especially horses, in tropical regions. Furthermore, certain facts have come to light that indicate that trypanosomes may play an important part in a certain Africa disease, known as sleeping sickness. At the present time the favorite method of procedure in specific therapeutic experimentation is by the way of immunization, i. e., attempts are made to secure antiserums.

Purely experimental pharmacologic therapy of infectious diseases has been greatly neglected. In view of the absolutely curative action of quinin in malaria—a disease caused by highly organized parasites of animal nature—it certainly would seem worth while to study the experimental therapy of trypanosomiasis by purely pharmacologic methods, as opposed to immunization. Already progress is reported. Laveran and Mesnil found that sodium arseniate has considerable antiparasitic effect in the case of mice infected with the trypanosomes of nagana, but unfortunately this effect was only temporary. As already mentioned in THE JOURNAL (pp. 1190-1256), Ehrlich and Shiga[1] resorted to the use of certain dyes belonging to the benzopurpurin series, and after some experiments they secured a special preparation which they call "trypanroth," which is easily soluble in water and not very toxic to mice. In this case the mice were infected with blood containing the trypanosomes of mal de caderas—a South American disease of horses—and usually death followed in four to five days. When infected blood and the solution of trypan red were injected simultaneously, but at different points, no disease developed. Injection of the red one to two days after infection also had marked effect, but relapse occurred even so long as sixty-five days later. By repeated injections definitive cure could be accomplished. The same result followed the giving of the trypan red by the mouth. In rats they found a much greater tendency to recidivation, and guinea-pigs and dogs proved less favorable still, the trypan red in them having only a slight effect. In mice infected with nagana trypanosomes the action of the red was much less favorable. Hence probably much further work must be done in order to discover other agents with curative action on other forms of trypanosomiasis than mal de caderas in mice. Trypan red does not kill the parasites in the test tube, but only within the body, which Ehrlich and Shiga found to remain protected only so long as the coloring matter was present in the circulating blood, i. e., only for two to four days. They conclude that under the influence of the dye, as the result of reactive phenomena, there develop antiparasitic bodies which soon disappear. By repeated reinfections and curative injections it was found possible to prolong the period of immunity for twenty to thirty days. In this case it would seem not unlikely that it concerns a real active immunity due to the repeated infections and destruction of the parasites, but even this immunity, after all, is only of brief duration.

It is, therefore, easy to understand that in these cases residual germs may give rise to relapses as the immunity passes away. Perhaps something similar occurs in relapses in malaria and in syphilis. These interesting experiments are also suggestive of a connection between pharmacology and immunity. Pharmacologic agents in directly or indirectly destroying parasites within the body may set up reactions that eventually lead to immunity.

1. Berl. klin. Woch., 1904, March 28 and April 4.

CHRONIC CONSTIPATION.

Chronic habitual constipation has long been the subject of widely different views so far as its importance as a factor in disease is concerned. On the one hand, we have those who, like Bouchard, Glénard and Feyot, hold it responsible for the gravest symptoms, attributable to autointoxication from resorption of fecal matter; on the other hand, those who, like Osler and Boas, think that autointoxication from this cause is rare, and that the great majority of persons with chronic constipation suffer little inconvenience from this condition. The experience of most practitioners bears out the latter view. Every physician knows of persons in fair health who have infrequent and scanty stools, while cases are on record of apparently healthy individuals who habitually went from two weeks to several months without any evacuations from the bowels. This "primary functional habitual constipation" is almost universally attributed to an abnormality of the nerves of the intestinal wall, leading to a lessening of normal peristalsis—atonic form—or to a spasmodic contraction of the muscular coat—spastic form. Nothnagel adds to these a form due to atrophy, congenital or acquired, of the muscular coat. This theory, almost unanimously accepted, was called in question two years ago by Strassburger,[1] who advanced the theory that the diminished peristalsis in chronic constipation is due, not to any abnormality in the innervation of the intestine, but to absence of the usual stimulus to peristalsis. Normally the stimulus is furnished by the products of bacterial fermentation, the acids, soaps and gases. Strassburger succeeded in demonstrating the fact that the feces of chronic constipation are abnormally poor in bacteria, that while normal twenty-four-hour feces contain 88 g. of bacteria (after all fluid has been removed by evapo-

1. Etsft. f. klin. Med., 1902, vol. xlvi, p. 413.

ration), the feces of constipated persons contain only from 2.6 g. to 5.5 g. The reason for this diminution he finds in the composition of the feces, which are almost devoid of remnants of the ingested food, such as muscular fibers and cellulose sheaths, the usual nutrient medium for the intestinal flora. Strassburger thus concluded that the underlying cause of chronic constipation is a too complete utilization of the ingested food. These statements of Strassburger seem to have just received confirmation at the hands of Lohrisch,[2] working in Schmidt's clinic in Dresden. Lohrisch finds that the amount of feces from normal persons averages 249.5 g. per day; from constipated persons only 125.5 g., and this difference is not due to abstraction of fluids, for the difference in weight of the evaporated feces in the two cases is still greater—59.3 g. for the normal and only 33.9 g. for the constipated. The diminution affects all of the constituents, but most markedly the nitrogen, which is reduced to 1.5 g. from the normal 2.9 g.

Weakened peristalsis alone, as in the constipation caused by the administration of opium, gives rise to smaller stools, but this is due only to abstraction of fluid, the solid feces are equal or even greater in amount than under normal conditions.

It might be said that this diminution of the normal intestinal contents is due to an abnormal activity of the bacteria in the intestines, to excessive fermentation. But this is disproved not only by ordinary clinical experience, which finds symptoms of abnormal fermentation very rarely in these cases, but also by Strassburger's researches just cited, and by the fact that the feces from chronic constipation show no signs of such a process. They are almost odorless, neutral in reaction, and may even be kept in the incubator without decomposing.

Chronic constipation, therefore, is, according to these investigators, due to diminished motility of the intestinal wall, but this is in its turn due to the overutilization of the ingested food in the small intestine. The feces in the large intestine are poor in nutriment, and can not support bacteria enough to produce the acids and gases of decomposition which normally excite peristalsis. It follows that a rational therapy would be directed not to strengthening the motor apparatus of the intestines, but to the increase of indigestible substances in the diet in order to provide nutrient medi for the intestinal bacteria.

SPINAL COCAINIZATION.

In a recent article, Bier,[3] whose name is familiar as the perfector of Corning's suggestion of anesthesia of the spine, announces that with the use of the suprarenal preparations he has relieved the operation of many if not all of its dangers. Their use, he says, renders it possible to insure strict localization of the cocain to the point where its action is desired. It had been known before that adrenalin injected into the lumbar sac was tolerated well by animals, and Bier applied this fact in his clinic. He has also utilized the method in one hundred and twenty-one cases in patients ranging in age from sixteen to eighty, mostly men, much debilitated and unable to undergo general anesthesia. In no case was there any unfortunate complication save a rather severe headache, lasting for a considerable period in a few instances. For the details of this method we must refer to the abstract, but it is a notable fact that so cautious an operator as Bier should be so positive in his asseverations as to the harmlessness of the method. As regards its comparative comfort, he admits that while some patients express for it a preference, others prefer general anesthesia, and some find both equally uncomfortable. It would appear from this evidence that the probability of spinal anesthesia—a name to which Bier objects—has probably come to stay among surgical procedures, but it will be desirable to have other testimony from various sources to confirm the fact of its absolute innocuousness.

2. Deut. Archiv f. klin. Med., 1904, vol. lxxix, p. 384.
3. See abstract in this issue, p. 1260.

PNEUMONIA MORTALITY OF PHYSICIANS.

It is generally supposed that physicians escape infectious diseases, notwithstanding their exposure, at least to an extent that is notable, considering the risks they run. There is some basis for this belief, for there is no doubt that they do largely escape in epidemics and in ordinary contagious disorders. This is owing to their better knowledge of the dangers and of how to ward off infection, as well as to a more intelligent and less panicky state of mind than is the case with the general public. When, however, a special malignancy is observed—as seems to have been the case the last few years with pneumonia, which is now acknowledged as an infectious disease—it is worth while to see how far the profession shares in the general mortality. We have looked up our records from October to March, inclusive, together with the first three weeks of April, to ascertain how many pneumonia deaths were reported among medical men. The pneumonia season just passed has had an average mortality of something like 15 to 20 per cent. of the total deaths during the season in some of the northern parts of the country. Taking the cases where the cause of death was known, we find that the percentage of deaths from pneumonia among physicians in October was 5; in November, 6.4; in December, 12.5; in January, 16.4; in February, 20.33; in March, 19.6, and for the first three weeks in April, 24. The figures probably do not cover all the cases, for a number are reported as having died after "short illness," which may indicate pneumonia. It would appear, therefore, that the medical profession has not escaped the increased mortality from pneumonia during the past pneumonia season. Considering the contingencies of their work, the exposures to cold, the wear of responsibility and the necessary irregularities of sleep, eating, etc., it is not at all wonderful that physicians should often succumb to pneumonia.

COMPARATIVE LONGEVITY.

The London *Lancet* calls attention to the fact of the large number of deaths occurring in well-to-do persons about the beginning of the seventh decade from diseases which are evidences of degeneration and premature senility, while other individuals pass on to the eighth and ninth decades in apparent health. It suggests that those who die thus early after the sixtieth year have indulged their appetites and lived unreasonably from a hygienic point of view. Considering that sixty years is a little beyond the average of human life and the numerous complications of heredity and incidental diseases, it seems that the position taken is a little too positive. People in prosperous circumstances that die at sixty have undoubtedly lived unhygienically in some respects, since no one lives according to the highest sanitary rules; their delinquencies may have been not the mere indulgences of their appetites, but the conditions through which, from the necessities of the case, they passed in order to attain their prosperous circumstances. We may put the average of human life as high as we please. There are few, however, who pass over the seventh decade, and still fewer who reach the ninth. That this has always been the case we have the best evidence in Holy Writ. Three score and ten is there given by the psalmist as the length of human life, except, when for reason of strength, it be four score. The nonagenarian was probably almost as rare in Moses' days as at the present time. In the strenuous life which we now live, with its many unhygienic accompaniments, among which we may include the strain and worry of modern civilization of which the ancients hardly knew anything, it is not remarkable that many fail before reaching their three score and ten. It is not fair to say that those who thus fail to do so have lived without restraint of their appetites. In some cases, at least, their appetites had to be restrained beyond reason, and the comparative degeneracy may be the later result of earlier innutrition.

THE TRANSMISSION OF BOVINE TUBERCULOSIS TO MAN.

In an interesting address[1] delivered before the Maryland Tuberculosis Exposition by Dr. J. George Adami, the title of which indicates a somewhat skeptical tendency of the author's thought on the subject of tuberculosis, the question of the communicability of bovine tuberculosis through the digestive tract of children is discussed. This is the method which Behring considers the chief or only one in its propagation. The test which Adami would recommend is based on the fact observed by Theobald Smith that the reaction of the bovine bacillus, as well as some of its other biologic characters, is somewhat different from that of the human germ, and that it takes some time for it to become so modified outside of its normal habitat as to assume that of the subject in which it is placed. According to Roux and Nocard, it requires months to convert human into avian types. It may well be that the bovine bacillus in the human system will require likewise an appreciable period for it to take on, so to speak, human characteristics. In acute cases in children the active development of the bacillus should occur, he thinks, before its ordinary features have become lost. If in our large centers some one or more workers were to make a continuous series of cultures from a long series of cases they might be able to solve the question as to the virulence of the bovine germ in the human subject, and the relative frequency of infection from the two sources would be determined. The test should be made under all conditions of exactness; the personal equation would be eliminated by the work of independent observers, and one of the disputed questions where high authorities differ would be in a way to be settled. Of course, we have reasonable evidence, as Adami says, that there is a certain danger from the bovine bacillus in the human subject, contrary to Koch's dicta, and no matter whether it is as serious as Behring states or not, it is a thing that ought to be carefully considered in our prophylaxis of tuberculosis. In the meantime, however, it will be well for us to obtain all the knowledge that is possible on the subject.

1. See abstract in THE JOURNAL, April 30, p. 1162.

AUTOAGGLUTINATION OF THE ERYTHROCYTES.

There are many peculiar phenomena among the so-called immunity reactions. One of the most peculiar is the ability of an individual's serum to agglutinate his own corpuscles under certain conditions. This phenomenon has been observed in Hanot's hypertrophic cirrhosis of the liver by several observers (Klein, Hayem, Reitmann and Obermayer). It will be remembered also that Flexner considers autoagglutination of the red cells to be responsible for the thrombi which often form in typhoid fever, pneumonia, etc., the bacterial toxins possibly causing the agglutination. Eisenberg[1] has observed autoagglutination in a case of generalized pyocyaneus infection, arising from a severe wound of the leg. It had been noticed during the course of the infection that when blood was withdrawn for examination it did not clot in the ordinary manner, but the corpuscles gathered in clumps and sank to the bottom of the pipette, leaving clear plasma above. This is the phenomenon of autoagglutination. The serum from such blood was also isoagglutinating to some extent, that is, it would agglutinate the red cells of another individual. "At the autopsy the blood in all vessels, especially the cerebral vessels, appeared as a colorless fluid, in which heaps of coherent corpuscles were suspended in the form of red points." Blood obtained from the heart separated into a layer of agglutinated corpuscles at the bottom, while the serum collected at the top of the tube. Singularly, however, the serum had lost the isoagglutinating properties which it had during the patient's life. Eisenberg explains this by supposing that after death all the agglutinating substances had been absorbed by the patient's own corpuscles during their agglutination. This accords with the well-known fact that cells can absorb more agglutinin than is necessary to accomplish their agglutination. This observation raises a fundamental question. The patient's blood contained something which was capable of agglutinating his own corpuscles, yet this

1. Centralblatt für Bact., etc., 1903, xxxiv, 739.

agglutination would occur only when the blood was withdrawn from the body or after the patient's death. This suggests in the first place the view of Metchnikoff, that the "immune bodies" exist for the most part intracellular in the body, i. e., in the leucocytes, and are liberated only when these cells disintegrate after blood is drawn or after the animal's death. It suggests also how vastly different processes in the test-tube may be from those in the living body. From observations of this nature, of which there are other examples, it is evident that there is much which is yet dark as to the *modus operandi* of the immunizing substances.

BLOOD IN THE FECES IN GASTRIC DIAGNOSIS.

As surgical knowledge advances and surgical skill becomes more perfect, the need for some early diagnostic sign in obscure stomach conditions becomes more and more apparent. Recently a number of articles have been published in Germany, which speak favorably of the value of traces of blood in the feces as a diagnostic sign in obscure cases of cancer and ulcer of the stomach. Schmilinsky's recent article[1] gives a good review of the subject. This author suggests that the examination of the feces it is to be noted that the color and the absence of general practitioner. The examination of the stomach juice is of value in some cases, but here the introduction of the stomach tube and the possibility of slight hemorrhage from this lead to a source of error. In examining the feces it is to be noted that the color and the absence of blood by microscopic tests are of no importance. Blood may be present in traces in fecal material of a light yellow color, and when it has passed all the way from the stomach it is no longer detectable by microscopic examination. Before making the test the patient should be prepared. He should avoid all raw or partly cooked meat, and should live on a diet of eggs, carbohydrates and fruits, though fruits containing much chlorophyl should be avoided. The test should not be made until the third day that the patient has been on such a diet. Severe purging should be avoided, though mild doses of castor oil may be given in order to be sure that a thorough evacuation of the whole intestinal tract takes place. After the proper preparation of the patient as described, the feces are collected for examination. Schmilinsky recommends Weber's modification of the guaiac test, which consists in extracting a mass of feces the size of a hickory nut with acetic acid followed by ether, and then testing the filtered ethereal extract. Old oil of turpentine or peroxid of hydrogen is added to the ethereal extract as an oxidizing agent, and in the presence of blood a blue color appears. The use of this method insures the reaction with blood alone, while the old method of direct testing was liable to many errors, as milk, potato, salts of iron, sputum or pus, and certain intestinal ferments could also give the reaction. The significance of a positive test for blood is discussed by Schmilinsky. He holds with Boas that a positive test is practically never found in normal individuals, in cases of atony of the stomach, in gastric neuroses, and in hyperchlorhydria and hypochlorhydria. Traces of blood in the feces are, on the other hand, very frequent in cases of gastric ulcer and carcinoma. The test is most important in cases of gastric carcinoma, where the tumor is not palpable, and there are no marked signs of pyloric obstruction. The blood test is, of course, not pathognomonic of carcinoma in cases of this kind, but its constant presence may be of great aid in establishing an early diagnosis.

1. Münchener med. Woch., Jahr. 50, No. 49; THE JOURNAL A. M. A., Jan. 16, 1904, p. 210.

THE YELLOW-FEVER SITUATION ON THE MEXICAN BORDER.

We recently had occasion to refer to the good work of the Public Health and Marine-Hospital Service in suppressing yellow fever in Texas last fall, and to the active prophylactic campaign now being carried on to prevent the recrudescence of the fever. From the amount and character of the work done by these officers, as shown by recent numbers of the weekly public-health reports, it is evident that the danger of an epidemic of yellow fever in southern Texas is being materially lessened daily. Although the last case declared to be yellow fever in Laredo was noted March 14, a complete house-to-house inspection of the entire city was made daily until April 18. This house-to-house inspection, in which the city was divided into thirty districts and each district inspected once every twenty-four hours, enabled the inspectors to discover and screen promptly all cases of fever, and thus eliminate the possibility of the development of new foci of the disease. Daily inspection also made possible more thorough and systematic oiling of water containers and other breeding places for mosquitoes. Allowing twelve days for the mosquito, after having bitten a yellow-fever patient during the first three days of his illness, to become infective, and five days for the period of incubation in an individual bitten by the mosquito, it may be assumed that secondary cases might develop in seventeen days. Of course, the mosquito remains infective after the twelfth day, and secondary cases may develop, therefore, long after the seventeenth day, but each daily house-to-house inspection after the seventeenth day which has developed no case of yellow fever increases the probability of safety. If, after the seventeen-day period had elapsed, a daily house-to-house inspection for six or seven days failed to discover any new case of yellow fever, the probability of any case of yellow fever existing would not be very great. On this theory is based the length of time the daily inspection of the entire city should be kept up. On April 18 this daily house-to-house inspection was discontinued, it being no longer deemed necessary to cover the entire city every day. The inspection force was reduced and the period required for inspecting the whole city with this reduced force necessarily extended from one to several days. The reduction of the inspection force in Laredo made available for immediate use in other localities a body of men trained and equipped for mosquito-destroying work. At Laredo the lines of possible infection diverge along the two railroad lines leading out of the city, the International and Great Northern Railroad running north to San Antonio and the National of Mexico running east to Corpus Christi. The San Antonio and Aransas

Pass Railroad runs southeast from San Antonio to Corpus Christi, and, with the railroads mentioned above, completes, roughly speaking, a triangle which incloses the territory most likely to be infected now or to become infected in the future. The men made available by the amelioration of the conditions in Laredo have been employed in mosquito-destroying work in the towns along the railroads forming this triangle—from Laredo to San Antonio, from San Antonio to Corpus Christi, and from Laredo to Corpus Christi. Many of these towns are known to have been badly infected with yellow fever last fall and winter, and to prevent the possible recurrence of the disease required energetic treatment. Wherever possible, all habitations in these towns were fumigated for mosquitoes, and the inhabitants organized into citizens' leagues and instructed in the practical destruction of mosquitoes. Railroad officials have promised to have water-barrels, tanks, etc., along the railroad lines covered with a film of kerosene oil. This action will not only eliminate many possible breeding places for mosquitoes, but will also exercise an educational influence on the inhabitants. Doctor Richardson of the Service has prepared a practical circular on mosquito destruction, which has been printed in large numbers and distributed freely among the inhabitants of the towns within this triangular area.

Medical News.

ALABAMA.

Negroes Have Smallpox.—On April 25 six cases were reported to the health authorities of Montgomery, and the patients, who were all negroes, were removed to the isolation hospital.

Medical College Loses Suit.—The petition of the board of trustees of the Medical Department of the University of Alabama, Mobile, for a writ of mandamus to compel the payment of the first installment of the $20,000 appropriation voted by the legislature for that institution, but not approved by the governor, was denied by Judge Sayre of Montgomery, April 22.

Personal.—Dr. James H. Gunn, Calera, health officer of Shelby County, has been awarded $4,450 damages for injuries sustained by falling into a ditch left unprotected by a firm of contractors.——Dr. John McI. Whiteside, Anniston, has been elected health officer of Calhoun County.——Dr. William H. Sanders, Mobile, has been unanimously re-elected state health officer.

State Association Meeting.—The thirty-first annual meeting of the Medical Association of the State of Alabama was held in Mobile, April 19 to 22. The following officers were elected: Dr. Capers C. Jones, East Lake, president; Dr. Walter H. Bell, Hargrove, vice-president; Drs. Edward H. Sholl, Birmingham, and Isaac L. Watkins, Montgomery, censors, and Dr. Seale Harris, Union Springs, orator. Montgomery was selected as the place for the 1905 meeting. On April 21, the Mobile Medical Society entertained the state association at a banquet, which was attended by nearly 300.

ARKANSAS.

Personal.—Dr. Oscar E. Jones has been re-elected health officer of Newport, and chairman of the local board of health.

For Pure Food.—Pulaski County Medical Society has adopted resolutions unqualifiedly endorsing the Hepburn pure food bill.

Smallpox in Jonesboro.—Jonesboro has 10 cases of smallpox in its isolation hospital, and one patient quarantined in her house. Only one of the patients is white.

Nineteen Graduate.—Out of a class of 23 at the Medical Department of the University of Arkansas, only 4 failed to pass the required examination. A class of 19 was given diplomas by Dr. James A. Dibrell, dean of the faculty, April 8, at the annual commencement exercises. Rev. J. K. Smith, Little Rock, delivered the address of the evening.

CALIFORNIA.

New Practitioners.—Cooper Medical College, San Francisco, graduated a class of 44, April 28. Dr. Charles N. Ellinwood conferred the degrees and president Benjamin Ide Wheeler of the University of California delivered the address of the evening.

Society Election.—At the annual meeting of the San Diego County Medical Society, April 1, Dr. Peter J. Parker, San Diego, was elected president; Dr. Edward M. Fly, National City, vice-president, and Dr. Thomas L. Magee, San Diego, secretary and treasurer.

March Mortality.—During March 1,432 deaths were reported, equivalent to an annual death rate of 16.56 per 1,000. Tuberculosis caused 256 deaths; heart disease, 171, and pneumonia, 116. An increased percentage in the deaths from typhoid fever and tuberculosis was noted.

Oakland Hospital Dedicated.—Providence Hospital, Oakland, erected through the efforts of the Sisters of Providence, was dedicated with imposing ceremony April 5. The hospital is a four-story frame structure, with a separate heating plant, and will accommodate 150 patients.

State Society Meets.—The thirty-fourth annual meeting of the Medical Society of the State of California was held at Paso Robles, April 19 to 21. The election of officers resulted as follows: President, Dr. Frank L. Adams, Oakland; vice-presidents, Drs. William T. Lucas, Santa Maria, and Wesley W. Beckett, Los Angeles; secretary, Dr. Philip Mills Jones, San Francisco; assistant secretaries, Drs. Thomas C. McCleave, Berkeley, and William F. Barbat, San Francisco; board of examiners, Drs. Dudley Tait, San Francisco, Walter S. Thorne, San Francisco, John C. King, Banning, A. Lincoln Cothran, San Jose, and George F. Reinhardt, Berkeley; councilors, Drs. Ashley S. Parker, Riverside, H. Bert Ellis, Los Angeles, Thomas C. Edwards, Salinas, George A. Hare, Fresno, Jacob L. Asay, San Jose, Curtis G. Kenyon, San Francisco, Edward N. Ewer, Oakland, Thomas Ross, Sacramento, Arthur H. Mays, Sausalito, Frank B. Carpenter, San Francisco, and George H. Evans, San Francisco, and Fitch C. E. Mattison, Pasadena, and delegates to the American Medical Association, Drs. H. Bert Ellis, Los Angeles, and W. Le Moyne Wills, Los Angeles. Riverside was chosen as the next place of meeting.

COLORADO.

Staff Elects Officers.—At the recent meeting of the medical and surgical staff of St. Joseph's Hospital, Denver, the following officers and committees were appointed: Dr. Alfred R. Seabass, president; Dr. Frank E. Waxham, vice-president; Dr. Edward Delehanty, secretary; Drs. Leonard Freeman, Thomas J. Carlin, and W. Bedford Craig, executive committee, and Drs. Patrick V. Carlin, Charles B. Lyman, and James B. Devlin, training-school committee.

CONNECTICUT.

Measles.—During the last twelve months, 8,190 cases of measles were reported by the local health officers of the state.

Personal.—Dr. Leonard B. Almy, Norwich, is still seriously ill, but conditions seem to be more favorable for his recovery.——Dr. Joseph H. Townsend, New Haven, has been appointed major and surgeon, and assigned to the Second Infantry.

Yale Gets Legacy.—By the will of the late Mrs. Henry Farnam of New Haven, Yale Medical School receives a legacy of $54,500 to be applied to the general endowment fund of the institution.

Infectious Diseases.—In the month of March, infectious diseases were reported as follows: Measles, 844 cases in 57 localities; scarlet fever, 191 cases in 47 localities; diphtheria, 93 cases in 26 localities; pertussis, 55 cases in 11 localities; typhoid fever, 31 cases in 17 localities, and tuberculosis, 29 cases in 11 localities.

March Deaths.—During March 1,517 deaths were reported, equivalent to an annual mortality of 19.2 per 1,000. Deaths from infectious diseases were 353, or 23.2 per cent. of the total mortality. Pneumonia caused 235 deaths; consumption, 149; nervous diseases, 173; heart disease, 136; influenza, 120; violence, 75, and bronchitis, 60.

DISTRICT OF COLUMBIA.

Violations of Pure Food Law.—Seven dealers in milk were prosecuted last week for violation of the pure food law.

Personal.—Dr. John C. Simpson, second assistant physician at the Government Hospital for the Insane, has resigned, to take effect May 16.

Field Hospital at Washington Barracks.—A new field hospital has been erected at Washington Barracks, near the Navy Yard, under the supervision of Capt. Frederick P. Reynolds, of the medical department of the Army.

Health of the District.—The report of the health officer for the week ended April 30 shows the total number of deaths to have been 125, of which 74 were white and 51 colored. The number of births reported was 109, of which 76 were white and 33 colored. The close of the week there were under treatment 9 cases of diphtheria, 22 of scarlet fever and 51 of typhoid fever.

Reed Memorial Incorporated.—The certificate of incorporation of the Walter Reed Memorial Association has been filed for the purpose of securing funds to erect a monument in Washington City to the memory of the late Walter Reed, major and surgeon U. S. Army. The officers of the association are Daniel C. Gillman, president; ex-Surgeon-General George M. Sternberg, vice-president; General Calvin Dewitt, secretary, and C. J. Bell, treasurer.

Casualty Hospital Report.—The quarterly report of the Eastern Dispensary and Casualty Hospital shows the total number of patients received, 567; prescriptions compounded, 822; re-visits, 1,760; re-dressings, 1,435; operations, 29; emergency cases treated, 411, and operations performed, 116. The grounds now occupied by the hospital have been purchased for the new site of the senate office building. The hospital will consequently be obliged to move and rebuild in the near future.

ILLINOIS.

Shun Publicity.—Alton Medical Society, at its last meeting adopted a resolution asking the press not to mention the name of a practitioner attending an accident case.

Society Elects Officers.—Jo Daviess County Medical Society held its annual meeting at Elizabeth, April 28, and elected the following officers: President, Dr. Thomas J. Stafford, Stockton; Dr. Alvan F. Bucknam, Warren, vice-president; Dr. Domer G. Smith, Elizabeth, secretary and treasurer, and Dr. I. Carson Smith, Stockton, delegate to the Illinois State Medical Society.

An Irregular Wanted.—A reward of $200 has been offered for the arrest of "Dr." Peter R. Langdon, Kankakee, who is wanted by the authorities on the charge of performing a criminal operation, as a result of which Mrs. Charles Carr died April 16. It is said that the accused has been charged with practicing medicine without a license, and with other criminal offenses.

Chicago.

Hospital for Orphan Asylum.—Plans have been prepared for a fireproof hospital in connection with St. Joseph's Provident Orphan Asylum, to cost about $80,000. It will be a concrete, brick-faced, four-story building.

Deaths of the Week.—For the week ended April 30 the mortality was 561, or an annual death-rate of 15.17 per 1,000. Pneumonia still heads the list with 114 deaths, followed by consumption with 62, Bright's disease with 53, heart diseases with 45, and violence with 33.

Low April Death Rate.—The death rate for last month was, with three exceptions, the lowest on record. The 2,486 deaths reported during the month represent an annual death rate of 15.68 per 1,000. The great reduction, as compared with 1903, is in deaths of children under 5, and amounts to nearly 30 per cent.

Increased and Decreased Mortality.—For the first third of 1904 apoplexy deaths increased 22.6 per cent.; those from Bright's disease 16 per cent.; from cancer, 10 per cent.; from violence, 9.4 per cent.; from consumption, 9.1 per cent.; from heart diseases, 3.3 per cent.; and from pneumonia, 3.7. During the same period the percentages of decreased mortality were as follows: Influenza, 50; nervous diseases, 17.5; smallpox, 94; typhoid fever, 43.3, and suicide, 20.

Medical Officers Examined.—By order of Surgeon-General Senn, an examination of candidate medical officers for the National Guard was held at Rush Medical College, April 30. Eight candidates took the examination; of these five were for the naval reserve, two were dental surgeons, and one examination was promotional. The range of subjects included anatomy, physiology, chemistry, materia medica and therapeutics, pathology and bacteriology, hygiene and sanitation, military surgery and practice of medicine. The naval candidates were examined on naval hygiene and sanitation, and the dentists on anatomy, physiology and dentistry.

MARYLAND.

Personal.—Dr. William Franklin Twigg, Cumberland, has been appointed physician to the county asylum and almshouse. ——Drs. Charles F. Bevan and Thomas S. Latimer, Baltimore, have been appointed members of the State Lunacy Commission.——Dr. John W. Cooper, Jr., Elkton, has been made secretary of the Cecil County Board of Health.

Sanitary Officers.—The following have been appointed sanitary officers of Baltimore County: Second District, Dr. John E. Bolte, North Branch; Third District, Dr. Henry M. Naylor; Fourth District, Dr. H. Montrose Slade, Reisterstown; Fifth District, Dr. Benjamin F. Price, Mount Carmel; Sixth District, Dr. J. S. Baldwin, Freeland; Seventh, Dr. Thomas C. Baldwin, Gemmills; Eighth District, Dr. T. Ross Payne, Corbett; Ninth District, Dr. Richard C. Massenburg, Towson; Tenth District, Dr. Thomas H. Emory; Eleventh District, Dr. James F. H. Gorsuch, Fork; Twelfth District, Dr. Caleb M. Ashey; Thirteenth, Dr. Frank H. Ruhl, Lansdowne; Fourteenth, Dr. William D. Corse, Gardenville, and Fifteenth, Dr. John W. Harrison, Middle River.

Baltimore.

Physician Robbed.—Dr. John Briscoe was held up and robbed of a diamond pin and money April 22.

Personal.—Dr. Thomas Sudler has been appointed coroner, and assumed his duties May 1.——Dr. Harry K. Gorsuch has been appointed health warden of the Fourth Ward, and Dr. George B. Scholl of the Sixteenth Ward.

Commencement.—The Baltimore University School of Medicine held its commencement April 19. The address was delivered by Senator Chauncey M. Depew of New York. There were 52 graduates. Dr. Joseph MacDonald, Jr., delivered the valedictory; Dr. Charles F. Willinsky of Massachusetts won the university prize, and other prizes were won by Drs. Lewis P. Knoll of New York; George W. Bell of New Jersey, and Charles L. Bates of West Virginia.

The Frick Collection.—The Charles Frick collection of the library of the Medical and Chirurgical Faculty of Maryland now numbers 2,500 volumes. The great majority of these are new works, and monographs in English, French and German. The section on the urine and diseases of the kidneys is particularly rich. A very important gift was made during the year by Dr. William Osler of 121 theses by American students at the University of Edinburgh between 1760 and 1810, a rare collection of Americana, which belonged to the library of the late Professor Hope of Edinburgh. The number of books borrowed for home use during the year was 1,683, and there were 4,351 readers in the library. The book-cases in the Frick room have become so crowded that it has been necessary to put shelves in the large meeting hall and place there part of this valuable collection. The Messrs. Frick have continued their annual appropriations.

MASSACHUSETTS.

Hospital for Brookline.—Fifteen physicians and surgeons of Boston have banded together and built a hospital on the north west slope of Corey Hill, Brookline. The building is of red brick and Indiana Sandstone, with very large allowance of air space for each of the twenty-five patients for whose care it is designed. It has special rooms for sun baths. The view from the top of this hill is unobstructed, and it is expected that this will in itself materially promote the convalescence of the patients. Miss Frances A. Stone, assistant superintendent of the Presbyterian Hospital of New York is to be the superintendent. All the details of the latest modern ideas of construction and equipment have been embodied in the structure. The physicians of the corporate membership will be given the preference in the use of the vacant beds, but other physicians will also be allowed to care for their patients there.

NEW JERSEY.

Spotted Fever.—Several cases of spotted or cerebrospinal fever have been located in Bordentown. The disease has also been carried from Bordentown to Trenton. Three deaths have resulted from the disease thus far.

Personal.—Dr. Harry H. Nelden has been elected first mayor of the new borough of Stanhope.——Dr. Charlotte Steekle, Trenton, has been appointed physician to the State Home for Girls.——Dr. Edward P. Buffett, Jersey City, has resigned as visiting surgeon to the City Hospital.——Dr. Elsmore Stites has been re-elected president, and Dr. John H. Moore, secretary of the Bridgeton Board of Health.

Smallpox in Lower Alloway.—Smallpox still continues in Lower Alloway, and so many cases have been reported that Dr. W. H. Husted, the health officer, has ordered all public schools closed and no public meetings of any kind held. Owing to the prevalence of the disease the board of health has ordered general vaccination of the residents of the community.

NEW YORK.

Albany College Commencement.—Albany Medical College graduated a class of 43, May 3.

Personal.—Dr. Charles H. North, Dannemora, has been made first assistant at the state hospital.——Dr. Henry Y. Grant, Buffalo, has returned from Europe.

Typhoid Decreases at Watertown.—The typhoid epidemic at Watertown is practically at an end. There have been reported 600 cases, with 44 deaths, since January 1, and there are 67 active cases at present.

Health Board Appointments.—Dr. E. F. Sheehan, president, Ossining; Dr. Wallace Clarke, health officer, Utica; Dr. Henry C. Sutton, health officer, Rome; Dr. Clarence C. Miles, health officer, Greenport; Dr. Charles G. Strobel, health officer, Dolgeville, and Dr. Harry S. Tuthill, health officer, Penn Yan.

Report of New York Institution for Instruction of the Deaf and Dumb.—In his annual report to the legislature, President Charles A. Stoddard stated that during the year there were 464 pupils, that the deafness of 204 was congenital, and that 93 lost their hearing before the age of two years. As to the cause of deafness, cerebrospinal meningitis was responsible for 36 cases, brain fever for 34 cases, scarlet fever for 30 cases, and measles for 18 cases.

New York City.

New Fordham Hospital.—The plans for this new hospital, which is to replace the present Fordham Hospital, have been filed. The estimated cost is $500,000.

"Dr." Conrad Again.—This man, who was recently arrested and tried on charge of producing abortion and released under $12,000 bail, has been re-arrested on another charge of the same nature.

Hospital Debt Reduced.—The annual report of the managers of St. Mark's Hospital show that during the past year 3,334 patients received treatment and 1,350 operations were performed. One mortgage of $5,000 has been paid off, and another reduced by $2,500.

New Quarters for Bellevue Internes.—The trustees of Bellevue Hospital have announced that the top floor of the old college building will be made into dormitories for internes. The parents of several of the successful candidates for vacancies on the staff have inquired into the reports regarding the unsanitary conditions of the dormitories, and have been assured that no repetition of past misfortunes need be feared.

Contagious Diseases.—There were reported to the Sanitary Bureau for the week ended April 23, 1,630 cases of measles, with 37 deaths; 391 cases of diphtheria, with 53 deaths; 436 cases of scarlet fever, with 32 deaths; 2 cases of smallpox; 83 cases of varicella; 381 of tuberculosis, and 202 deaths; 28 of typhoid fever, with 5 deaths, and 55 deaths from cerebrospinal meningitis. There were also 399 deaths from pneumonia.

Measles and Cerebrospinal Meningitis in Brooklyn.—Measles was never so prevalent in Brooklyn as at present. For several weeks, from 75 to 100 cases have been reported daily, and this does not include adults. Since January 1 there have been 36 cases of cerebrospinal meningitis, and 9 out of every 10 have died. The health department takes measures to prevent its spread, but is much hampered in its efforts owing to the rapid course of the disease.

Clinical School Faculty Changes.—The following changes and additions were made, April 9, in the faculty of the New York School of Clinical Medicine: Dr. John L. Adams, elected secretary; Dr. Emmet C. Dent, professor of mental diseases; Dr. W. Brewster Clark, professor of internal medicine; Dr. Robert C. Kemp, professor, and Dr. Graham Rogers, associate professor of gastrointestinal diseases; Dr. Alfred W. Gardner, professor of hydro-therapeutics; Dr. George A. Taylor, professor, and Dr. William E. West, assistant and clinical instructor in ophthalmology and otology; Dr. C. Stern, chief of clinic and associate professor of genito-urinary diseases, and Dr. Leopold D. Weiss, chief of clinic and instructor in dermatology.

Real Estate Agents and "Race Suicide."—Careful investigation has demonstrated that, as a rule, New York landlords have a decided prejudice against children. A large number of real estate agents refused to rent to families having more than two children, and indicated plainly that even these were not desired. In one apartment house containing 60 families there were only 5 children; in another having 40 families, there were only 6 children, and in still another, only 1 child to 35 families. In 22 apartment houses, containing in all 485 families, there were only 54 children. These were high-priced apartments, but a similar condition was found to obtain in the less expensive flat houses. If families generally were not small, landlords could not enforce such rules without losing their rent.

Quarterly Report of Deaths.—The actual number of deaths for the last quarter of 1903 was 16,405, which, on an estimated population of 3,732,903, gave an annual death rate of 17.45 per 1,000, as against an average number of 15,480 deaths for the corresponding quarter of the preceding five years, which on an estimated population of 3,448,567, gave an annual death rate of 17.82 per thousand, a decrease of one-third of one per cent. The noteworthy increases found in comparing the deaths in this quarter with the preceding quinquennial average of the corresponding quarters were among the diseases affecting adults and old people as follows: apoplexy, 77; organic heart disease, 105; pneumonia, 426; Bright's disease and nephritis, 102, and pulmonary tuberculosis, 96. There were 782 more deaths between the ages of 5 and 65, and 270 more at 65 and over. Diphtheria showed an increase of 50, and measles 12 above the quinquennial average. The chief decreases noted were in whooping cough, acute bronchitis, malarial fever, and typhoid fever.

Immunization in Diphtheria.—A circular to physicians setting forth the importance of immunization for the prevention of diphtheria has been issued by the health department. It has been the custom of the department when administering antitoxin in cases of diphtheria, to give immunizing doses to other members of the family. The records of the department compiled from the reports of results show the great value of immunization. From Jan. 1, 1895, to Jan. 1, 1903, immunizing injections were administered to over 13,000 individuals, and, of these, only 3 per cent. contracted diphtheria of a mild type and only 1 case terminated fatally. The records show that during one year alone, 682 cases of diphtheria occurred in this city which were secondary to an original case in the same family. Of these 682 cases 61 died, a mortality of 8.9 per cent. Had these 682 individuals received the immunizing dose of antitoxin when the physician first visited the family, probably not one would have contracted the disease. The above figures represent only a fraction of such secondary cases occurring in New York City. The minimum dose of antitoxin to be used for immunizing a child under two years of age is 300 units; for older children and adults, 500 units.

Boil the Oysters.—At the last meeting of the county society, April 25, the oyster as a medium for transmitting the typhoid fever germ was discussed. Dr. Cyrus W. Field, assistant bacteriologist to the department of health, related the experiments conducted with typhoid-infected oysters and proved that oysters carried typhoid bacilli alive for nine days when in brackish water. Many oysters die in transit, and it was stated that dead and dying oysters furnished good culture media for these bacilli. It was shown that the oyster beds in the vicinity of the city were polluted and that typhoid germs might easily be present for transmission. The oystermen, aroused by Dr. Field's report on typhoid bacilli among oysters fattened in contaminated streams, offered $10,000 for the discovery of typhoid germs in oysters. Dr. Field said he would not claim the reward, because he had not found the germs in oysters, but that he knew that typhoid bacilli had been introduced into "drinking beds," and had found traces of them in oysters afterward. So much attention had been called forth by this subject that the English foreign office had sent a commission over to confer with our government on the conditions surrounding the cultivation of oysters sent abroad.

OHIO.

Cincinnati Internes Appointed.—Dr. Fannie Hollingshead of the graduating class of the Miami Medical College, was elected interne to Christ's Hospital after competitive examination.——At a recent meeting of the staff of St. Mary's Hospital, Dr. John H. Landis was elected to the department of medicine, and Dr. Park Gilmore to the department of pathology and microscopy. Drs. Carroll W. DeCourcy and S. U. Swing, both from the graduating class of the Medical College of Ohio, were elected internes for the ensuing year.

OREGON.

New Medical Building.—Willamette University, Salem, is about to erect a new building for its medical department, to cost $10,000.

Personal.—Dr. Robert J. Pilkington has been re-elected city physician of Astoria.——Dr. Eugene Du Gas, Roseburg, has resigned his position as health officer of Douglas County.

Injured Physician Amputates His Own Leg.—The *Oregonian* reports that Dr. G. W. Maston, Klamath Falls, sustained serious injuries to his leg, April 20, which caught in the wheel of his buggy. Before assistance arrived, Dr. Maston had almost completed the amputation of his leg, with a penknife.

Seventeen Graduate.—On April 18, the medical department of the University of the State of Oregon, Portland, graduated a class of 17. The annual address was delivered by W. W. Cotton, Esq., and Hon. Charles B. Bellinger conferred the degrees. The charge to the class was delivered by Dr. Holt S. Wilson.

PENNSYLVANIA.

Personal.—Drs. Simon Seegman and Thomas F. Moore, assistant city physicians of Pittsburg, have resigned, and after a post-graduate course in Philadelphia, will study in Europe. ——Dr. John A. Fall has been re-appointed a member of the Doylestown Board of Health.

Milk Inspection for Norristown.—The Montgomery County Medical Society has appointed a committee consisting of Drs. Joseph K. Weaver, S. Nelson Wiley and Reinoehl Knipe, to cooperate with the Norristown Board of Health to secure a purer and cleaner milk supply. Inspection is to be made of all dairies supplying milk to the borough.

War on Illegal and Malpractitioners.—At the last meeting of the Philadelphia County Medical Society resolutions were adopted and committees were appointed to apprehend and bring to justice the illegal and malpractitioners who are actively infesting Philadelphia. Dr. Henry Beates, president of the State Board of Medical Examiners, stated that there were 100 men practicing medicine in the city who had not passed the required examinations. A fund of $1,000 is being raised to prosecute these offenders. The work of ferreting out these individuals will be under the supervision of the censors and directors of the society. Another committee was appointed to offer the organized services of the society to the health authorities in their efforts to rid the city of malpractitioners and abortionists. This committee will endeavor to trap the malpractitioners and to locate licensed physicians who do illegal work. A blacklist of the latter men will be kept by the society.——At a meeting of the Northern Branch of the County Medical Society it was stated that 5,000 criminal operations are performed in Philadelphia every year.

Philadelphia.

Sherrington in Philadelphia.—Dr. Charles S. Sherrington, of the University of Liverpool, England, was the guest of the University of Pennsylvania, May 5, and delivered a lecture at the Medical School on "Cerebral Localization."

Medical Student Dies.—Samuel S. Stryker, son of Dr. S. S. Stryker, a junior in the University of Pennsylvania Medical Department, died at the Presbyterian Hospital, Philadelphia, after an operation for appendicitis, April 12.

Personal.—Dr. John M. Macfarlane, professor of botany in the University of Pennsylvania, sailed for Europe, April 30. He has four months leave of absence, and will do research work in the botanical gardens of London, Richmond, Florence, Geneva and Amsterdam.——Dr. Harry K. Carey sailed for Europe, April 30, and will be absent several months.

Tuberculosis Pavilions Ready.—The six tuberculosis pavilions at the Philadelphia Hospital for the treatment of patients with tuberculosis have been completed. During the past week they have been prepared, furnished, and are now practically ready for occupancy. The buildings are constructed entirely of steel and glass, and are so arranged as to give the patients every benefit of the out-door or open-air treatment of the disease. About 20 patients can be accommodated in each pavilion.

Entertain Societies.—Dr. J. William White, professor of surgery in the University of Pennsylvania, and Dr. Edward Martin, his colleague, entertained the Agnew Surgical Society of the university at Dr. Martin's country place, Yearnwold. The Agnew Surgical Society was formed during the time of Dr. D. Hayes Agnew. It has been the annual custom of Dr. White and Dr. Martin to entertain the Agnew Society at Yearnwold.——Dr. James Tyson, professor of medicine in the University of Pennsylvania, entertained the Tyson Society of the university at his residence, April 29.

Spotted Fever at League Island.—Four cases of spotted fever have been discovered among the sailors at the League Island Navy Yard. One of the victims died in the Naval Hospital; the other patients affected are in an isolated part of the navy yard. The sailors, about 1,000 in number, who have been housed in the barracks, are now camping out in tents. Strict quarantine has been placed on the grounds, and no one is allowed to come or go until the disease is checked. The entire camp is to be fumigated. Dr. Presley M. Rixey, surgeon general of the Navy has visited the yard and outlined plans to overcome the condition.

Health Report.—There has been a material decrease in the number of typhoid cases during the week ended April 30. There were 298 cases reported, as compared with 352 for the preceding 7 days. The number of deaths recorded, however, was high, 45. This was an increase of 31 over those reported during the previous week. There was also a decrease in smallpox, both in the number of new cases returned and in the deaths from that disease. The number of cases reported were 23, a decrease of 9 over the preceding week. The deaths from all causes during the week numbered 592. This is an increase of 3 over last week, and an increase of 93 over the corresponding period of last year. The deaths from pneumonia still continue unusually high. The total number of deaths attributed to this condition reached 92.

SOUTH CAROLINA.

Personal.—Dr. Benjamin W. Taylor, Columbia, has been recommissioned by the governor as a member of the board of regents of the Hospital for the Insane.

Commencement.—At the seventy-fifth annual commencement exercises of the Medical College of the State of South Carolina, Charleston, April 4, diplomas were given to twenty-three graduates in medicine. Governor D. Clinch Hayward delivered the address to the class.

Society's Semi-Centennial.—The Columbia Medical Society celebrated its fiftieth anniversary by a banquet, March 13. Dr. Lawrence B. Owens was toastmaster, and the past, present and future of the society were discussed, and informal and reminiscent speeches were made by the various members.

State Society Elects Officers.—At the fifty-sixth annual meeting of the South Carolina Medical Association, held in Darlington, April 19 to 21, the following officers were elected: President, Dr. Robert Wilson, Charleston; vice-presidents, Drs. William C. Black, Greenville, James H. McIntosh, Columbia, and Edward L. Patterson, Barnwell; secretary, Dr. T. Prioleau Whaley, Charleston, and treasurer, Dr. Charles P. Aimar, Jr., Charleston.

Nominates Medical Examiners.—The South Carolina Medical Association, on April 21, nominated the following as members of the State Board of Medical Examiners: First District, Dr. Walter P. Porcher, Charleston; Second District, Dr. Theodore G. Croft, Aiken; Third District, Dr. Orland B. Meyer, Newberry; Fourth District, Dr. Davis Furman, Greenville; Fifth District, Dr. R. Andral Bratton, Yorkville; Sixth District, Dr. James L. Napier, Blenheim; Seventh District; Dr. Samuel C. Baker, Sumter, and at large, Dr. William M. Lester, Columbia.

UTAH.

Must Register Deaths.—A circular has been sent by the State Board of Health to the boards of county commissioners, in which the board gives notice of its intention strictly to enforce the registration of deaths.

Must Report Tuberculosis.—The State Board of Health has adopted a rule which provides that physicians must report to the health officers all cases of tuberculosis. The board also announces that microscopic examination of sputum will be made free of charge at the state laboratory.

Refuse Vaccination—Smallpox Rife.—On April 23 there were at least 50 cases of smallpox at the quarantine hospital and under guard in Salt Lake City. The health commissioner attributes the spread of the disease to the refusal of the people to be vaccinated, and urges the adoption of more stringent regulations.

New Hospital for Salt Lake City.—Early in August the hospital endowed by the late Dr. W. H. Groves, and known as the Dr. W. H. Groves Latter-Day Saints' Hospital, will be ready to receive patients. About $117,000 will have been expended on the building and land at the time of opening. The building is four stories in height, and is fireproof throughout.

WASHINGTON.

Railway Hospital for Tacoma.—Plans have been completed for the erection of a hospital for the Northern Pacific Beneficial Association at Tacoma, to cost $100,000.

Six Weeks Quarantine Ordained.—The Seattle Board of Health has promulgated a rule to govern the handling of scarlet fever cases, which provides that hereafter, scarlet fever patients must undergo a minimum quarantine of six weeks.

Violence Heads Death List.—The death-causes of the year 1903 in the state show that 484 died violent deaths, and this does not include homicides; 446 died from tuberculosis; 283 from pneumonia; 236 from heart diseases; 181 from typhoid fever; 180 from senile debility, and 176 from kidney diseases. Of the 484 violent deaths 268 occurred in King and Pierce counties.

Personal.—Dr. William B. Wells has added to the staff of the Hoquiam General Hospital, Drs. Harry C. Watkins, Cosmopolis, and Dr. Horace Campbell.——It is announced that Dr. Edmond Klamke, Ilwaco, has been appointed to a position in the hospital service of the Russian army and has started for the seat of war.——Drs. Myra L. Everly, Harriet J. Clark, Park W. Willis, F. L. Horsfall and Robert M. Stith have been named as the medical staff of the Florence Crittenton Home, Seattle.

WEST VIRGINIA.

Bequests to Hospital.—The late Aaron Bloch, Wheeling, by his will bequeathed $5,000 to the permanent fund of the City Hospital.——The late Henry Jacobs bequeathed $100 to the same institution.

Construction Camps Under Guard.—Dr. Thomas H. West, health officer of Keyser, W. Va., has ordered two Wabash construction camps, containing 250 men, into direct quarantine on account of smallpox.

New Hospital Opened.—The New Cook Hospital at Fairmont was opened, April 29. It cost $100,000, and has 90 rooms. The walls and floor are constructed of white tiling, and there are marble stairways. There is a roof garden; also a sun parlor. The former hospital building will be used as a nurses' home. The hospital staff consists of Drs. John R. Cook, Albert W. Sterling, Edward W. Howard, Hal Hall, James J. Durrett and Dorsey P. Fitch.

GENERAL.

The American Proctologic Society will hold its sixth annual meeting at the Seaside House, Atlantic City, June 8 and 9.

Measles Among Canadian Indians.—The epidemic of measles which has been so fatal among the Indians of the Mackenzie Basin, Canadian Northwest Territories, is subsiding from lack of further material; scores have died.

Second Health Conference Called.—Surgeon-General Wyman of the U. S. Public Health and Marine-Hospital Service has issued a call for the second annual conference of state boards of health at the New Willard Hotel, Washington, June 3.

The American Confederation of Reciprocating Examining and Licensing Medical Boards will hold a meeting at the Great Northern Hotel, Chicago, May 24. At the present time the following states are reciprocating: Illinois, Kentucky, New Jersey, Maine, Maryland, Indiana, Nebraska, Ohio, Wisconsin, Iowa and Michigan.

Mexico is Quarantined.—To guard against yellow fever, Texas has established a quarantine against all persons coming from points in Mexico at which yellow fever existed last year. The Mexican authorities protest against the action of Dr. George R. Tabor, the state health officer of Texas, and have appealed to the Department of State.

Smallpox in Mexico.—A total of 318 deaths out of 500 cases of smallpox is the summary of the situation at Torreon, Mexico. The population of the city is 25,000, including 2,000 foreigners. Among the latter 20 cases occurred with 10 deaths. A number of physicians from other cities have assisted in the inspecting, the vaccinations and the burning of infected houses. The normal aspect of the city will be resumed, it is thought, in a few weeks.

Gen. Leonard Wood on Swimming.—Gen. Leonard Wood, in command of the military forces in the Philippines, has issued a general order calling attention of the company commanders to frequent cases of drowning among officers and men who have never learned to swim. He says:

> Definite arrangements should be made at every station at the seaside or near lakes or streams suitable for swimming, so that all can be taught to swim. This necessary and healthful practice should be encouraged and, if necessary, made compulsory.

Uncinariasis in Porto Rico.—The commission to investigate the causes of anemia in Porto Rico, consisting of Dr. Bailey K. Ashford, assistant surgeon, U. S. Army; Dr. W. W. King, assistant surgeon U. S. Public Health and Marine-Hospital Service, and Dr. Pedro Gutierrez, a native physician, report that 63 per cent. of the population is engaged in agriculture, that anemia is the apparent cause of 25 per cent. of all deaths, and that uncinariasis is the disease responsible. Measures for prophylaxis and treatment will be recommended.

To Fill Positions in the Philippines.—Examinations will be held at Baltimore, June 1 and 2, by the U. S. Civil Service Commission for the following positions in the Bureau of Government Laboratories at Manila, P. I.: Pathologist, $1,800; pharmacologist, $1,800; chemist, analytical division, soils and waters, $1,600; chemist, economic products division, familiar with organic chemistry, essential oils,, etc., $1,600; chemist and collector, economic products division, $1,500; assistant for physical chemist, $1,500; entomologist, $1,400; bacteriologist of serum division, $1,400. These represent the lowest salaries, but there are to be promotions and larger salaries in prospect.

CANADA.

New By-Law on Vital Statistics for Montreal.—The city council of Montreal has adopted a by-law requiring physicians and other qualified persons to report all births to the board of health within eight days. There has been in vogue in Montreal a system of reporting births, but it was considered most imperfect, and hence the new by-law.

St. John, N. B., Hospital Report.—Dr. T. H. Lunney, superintendent of the St. John, N. B., General Hospital, reports that 962 patients were treated there in 1903. There were 379 medical diseases, 489 surgical cases and 114 eye and ear cases; 496 patients were discharged cured, 307 as improved; 75 died and 49 remained. The out-door department totaled 640 cases.

Western Hospital, Montreal, Needs Addition.—The Western Hospital, Montreal, needs a new wing, and at a meeting of the board of governors last week, it was decided to open subscription lists at once for securing the necessary funds. The medical report for the quarter ending March 31, submitted by Dr. England, shows that 133 patients were admitted, 61 males and 72 females; 7 died and 29 are still inmates. The record of the out-door department brings the total consultations up to 1,783, which shows a decrease from the corresponding quarter of 219.

A Methodist Hospital for Toronto.—The leading Methodist church paper in Toronto advocates a Methodist hospital in Toronto, and judging from the manner in which all of the hospitals were congested during the past winter, there is ample room for such an institution. By the will of the late Hart A. Massey, $100,000 is available for the purpose, on condition that a similar amount should be subscribed. It is understood that the medical faculty of Toronto University would welcome such an institution within easy reach of their new medical building.

Kentville Sanitarium, New Brunswick.—The government of New Brunswick has about completed a sanitarium for consumptives at Kentville. It has been beautifully arranged and well fitted for the reception of patients, and will be opened without further delay. The building is situated on the north side of the Cornwallis River, with a magnificent southern exposure. The ground floor consists of a hallway, running through the whole length of the building, dining room, nurses' rooms, physicians' rooms, operating room, laboratories, etc., while upstairs there are twelve large rooms for patients.

A Protest.—The medical students of the province of Quebec are protesting against the proposed action of the legislature, which would throw open the doors of the profession in that province to those who have not fulfilled the conditions imposed by the present law. The bill now before the legislature proposes to admit all who have begun the study of medicine before September last, thus avoiding their matriculation examinations. The profession in Montreal is aroused against the measure and is sending a deputation to Quebec to protest before the legislature. The passage of the measure would benefit nearly 260 students in Quebec and Montreal.

Personal.—Dr. H. S. Hutchinson has been appointed assistant in the chemical laboratory, and Dr. F. W. Marlowe, assistant demonstrator in anatomy, at Toronto University.——The following appointments have been made at Queen's University, Kingston: To be professor of pediatrics and associate professor of obstetrics and gynecology, Dr. Wood; to be assistant professor of anatomy, Dr. Mylkes; to be professor of medical jurisprudence and toxicology, Dr. Williamson.——Dr. Frederick Etherington, Kingston, Ont., has been appointed to the newly inaugurated tutorship in human and comparative anatomy at Queen's University. Dr. Etherington is now in Edinburgh, Scotland, further pursuing medical studies, but will return in the autumn.——Dr. George Wilkins, professor of medical jurisprudence at McGill University, at the termination of his course of lectures for the 1903-1904 session, was pre-

sented by his class students with a handsome illuminated address inscribed in Chinese characters.——Dr. J. H. Wilson, St. Thomas, who for many years sat in the Canadian House of Commons, has been appointed a senator by the dominion government, succeeding Dr. Geo. Landerkin, deceased. The medical profession of the county of Elgin, Ontario, tendered Dr. Wilson a banquet April 11.——Dr. L. Harwood, Montreal, has been appointed professor of gynecology in Laval University and chief of the gynecologic department of Notre Dame Hospital of that city, succeeding the late Dr. Brennan. He has also been chosen president of the section on gynecology of the Medical Congress of French-Speaking Physicians of North America, which is to meet in Montreal this year.

FOREIGN.

Bubonic plague continues on the west coast of South America.

King Edward VII Hospital in Grosvenor Garden, London, has been opened for the treatment of sick officers of the British army. Thirty London practitioners of eminence are on the staff.

Historical Medical Museum.—The formal opening of the department of medical history in the Germanic National Museum at Nuremberg occurred recently. All over Germany and Austria families have been delving among their heirlooms from medical ancestors and have found many articles of surpassing historical interest, which have been presented to the museum. The collection of books and MSS., instruments and medals is being rapidly catalogued. Those in charge regard the work as a memorial to Dr. R. Landau, who gave the first impetus to the project.

The Paris "Societe de l'Internat."—A new society has been organized at Paris to unite the past or present internes of the hospitals in fraternal bonds. The first meeting was held February 7, 1904, and the membership has already reached 140. Meetings will be held at 5 p. m. the fourth Thursday of each month in the rooms of the surgical society. The presidency has been conferred on Professor Jacquet; Berthod is vice-president, and Marcel Baudouin has charge of the archives. The first scientific meeting will be addressed by Widal on the subject of "Dechloridation, Its Indications and Therapeutic Results."

Remote Results of an Advertised Eye Remedy.—Professor Siegrist, the well-known ophthalmologist of Berne, has had occasion to examine later the eyes of persons who have been advertised as cured by ophthalmol, an oil claimed to cure all eye affections. One subject was a man of 65, who exhibited a whole battery of empty bottles of the oil and had been heralded by the manufacturer of the oil as a brilliant example of its success. He was found a year later to have bilateral cataract, which had ripened during the interval. Siegrist publishes in the *Aerztl. Vereinsblatt* a number of other cases in which he has had to perform cataract extraction on patients alleged to have been cured by the oil. It is derived from certain fish, and a stock company has been formed to exploit it, with the intention to open "eye parlors" in sixteen German cities.

Leipsic Number of the Deutsche Medicinische Wochenschrift.—The German Congress for Internal Medicine was held at Leipsic, April 18 to 21. In honor of this event the *Deutsche medicinische Wochenschrift*, whose publishing house is in Leipsic, issued a festival number. It is entirely devoted to articles issuing from the Leipsic clinics—a total of twelve important works, headed by Curschmann's monograph on "Unusual Course and Sudden Death in Typhoid." The photographs of leading physicians in charge of the internal medicine clinics in Germany, Austria and Switzerland are grouped on a separate sheet—thirty-three in all, with Bäumler, Curschmann and von Leyden in the center. The portraits are all strikingly good and well printed, the sheet about 10x12 inches, framing well.

Tuberculosis in German Prisons.—Dr. Bär, an experienced German prison medical officer and medical statistician, has recently made an appeal for the temporary paroling of tuberculous prisoners or their detention in special hospitals. He urges the necessity for some such measure from the statistics of the death rate from tuberculosis in the prisons during the last fourteen years, which was 56 per cent. of the total mortality from natural causes. Even in the most hygienically equipped prisons the mortality could not be reduced below 38.3, while the average in the populace outside is only 18.5 per cent. Convicts who are already tuberculous on their entrance prove a dangerous source of infection for others, and they should be kept apart in separate quarters or temporarily transferred to some hospital. Estimates for a tuberculosis hospital or sanatorium pavilion in each prison are now being prepared, and Bär's suggestion will probably be acted on when the appropriations are made for another year.

Physician Fined for Error of Druggist.—The local court of Havre, France, has recently imposed a fine of $40 and costs on a local physician. The physician and druggist were sued for damages in a case of homicide from imprudence. A child had been injected with a solution of cocain 1/50 instead of 1/500, which the physician had ordered to be put up. The court decided that the physician had been remiss in not verifying the strength of the solution when it was delivered to him; also in having the syringe filled by an ordinary nurse instead of a trained assistant. He was considered the only one responsible. The prescription could not be found and the pharmacist was acquitted. This case, by the way, is cited by a writer in an English exchange to show the danger of error in reading prescriptions dosed according to the metric system: "It is so easy to misplace or misread the decimal point, while the hieroglyphics at present in use afford less occasion for error."

Danger of Self-Medication in Incipient Tuberculosis.—The French Antituberculosis League, which conducts the special tuberculosis dispensaries in France, has found that out of the 70,000 consultations given to tuberculous subjects during the three years of its establishment, only a very few patients were seen at the commencement of their lung affection. The overwhelming majority were in too advanced a stage for medical aid to be effective. The league has also discovered that this majority had wasted months or years after the first symptoms of illness had been noticed, in self-medication, taking this or that advertised remedy until the precious opportunity for cure had passed. Resolutions were, therefore, adopted calling this fact to the attention of the authorities, warning that the sale of these nostrums "warranted to cure coughs, colds and tuberculosis" is the cause of many unnecessary deaths every year, and should be indicted on the grounds of the illegal practice of medicine, deliberate fraud and murderous practices.

The German Medical Exhibit at the World's Fair.—The committee in charge of the exhibit decided to devote the comparatively small space allotted to Germany to a presentation of the German methods of instruction in medicine. Anatomy, surgery, internal medicine and bacteriology are thus presented in systematic order, as taught in Germany. One-fourth of the entire space is given up to bacteriology and experimental therapy, outlining a complete course, with each of the most important human and veterinary diseases treated separately. The etiology is shown by cultures and pictures of the germs, their pathogenic properties by mounted specimens and plates, and differentiation by production of agglutination and the specific chemical changes in the micro-organisms. The various procedures in bacteriologic examination are also presented, and a complete outfit of one of the "flying laboratories" organized to fight typhoid and other epidemics on the spot. The principle is to fight the disease in the individual and destroy all infection breeders on the spot. There will be ample evidence, pamphlets, statistics, etc., to testify to the value of this mode of prophylaxis of epidemics. The exhibit of serums, their standardization and their practical results is the co-operative display of the Imperial Board of Health, the Institutes for Infectious Diseases at Berlin and for Experimental Therapy at Frankfurt, the institutes at Halle and Breslau and Dunbar's institute at Hamburg besides the private firms that manufacture serums. The exhibit for internal medicine portrays a clinical lecture on the subject of tuberculosis, etiology, examination of patient, pathologic findings, prophylaxis and treatment. The surgery exhibit is planned on much the same lines, but comprises two separate displays, one arranged by von Bergmann, the other by Mikulicz, each exhibiting the instruments, etc., preferred. Bergmann presents a portable Röntgen apparatus which allows reduction and fixation of fractures, etc., under constant control of the eye. Nitze's first, original cystoscope is seen in this display. Great efforts have been made to make the exhibit of pathologic anatomy truly representative of German achievements in this line with actual specimens preserved in the Kayserling fluid, casts, photographs, atlases, etc., contributed by many institutions and clinicians.

LONDON LETTER.

Recrudescence of Smallpox in London.

The usual seasonal rise in smallpox has taken place; 17 fresh cases were reported in January, 19 in February and 108 in March. In the fortnight ending April 9 there were 61 more cases. These figures refer only to notifications; some of the cases proved not to be smallpox. The cases have occurred

chiefly in the poorest part of the metropolis—the east end. As in the recent epidemic, the spread of the disease is largely due to unrecognized cases. Early removal to hospital, disinfection and supervision and revaccination of "contacts" are being energetically carried out.

The Reorganization of the War Office and of the Army Medical Service.

The war office can be relied on to do two things—to shamefully muddle military affairs and to "sit on" the medical profession whenever the opportunity occurs. The glaring military incapacity disclosed by the South African war led to the appointment of Lord Esher's committee, which has made sweeping changes in the war office. The office of commander-in-chief has been abolished and his authority divided between the members of the new army council, each responsible for a department, such as inspection of troops, fortifications, commissariat, etc., but no place has been found for the army medical service on the council. Hence fierce criticism of this grave defect appears in the medical press. Only weak and inefficient replies are forthcoming. It is said that the adjutant general, a member of the council, occupies a much stronger position than his predecessor, and will be able to represent effectively the medical needs of the army. But no answer is vouchsafed to the obvious reply to this. How can he possibly, with his extensive and multifarious duties, to say nothing of his ignorance of medical matters, represent them as well as the director of the army medical department? The naval and military committee of the British Medical Association has passed a resolution to the effect that the medical service of the army occupies so important a position in safeguarding the health and life of the soldier in peace and war that it is essential in the best interests of the army that the medical service shall be administered by a medical officer, with a seat on the army council.

The Society for the Study of Inebriety.

At the annual meeting of the Society for the Study of Inebriety, Dr. Harry Campbell, the president, said that the past year was the most successful the society has ever had, its membership having increased by leaps and bounds. The twentieth annual report, which was adopted, showed that during the year 117 doctors have been elected members and 152 lay associates have joined. The number of associates and members now reaches 400. The council has arranged for the publication quarterly of the *British Journal of Inebriety*, of which four numbers have appeared. After the formal business had been transacted Dr. Robert Jones, medical superintendent of the London County Asylum, read an important paper on "The Relation of Inebriety to Mental Disease." He stated that although the improvement which occurred under treatment in alcoholic insanity was often noticed it rarely ended in complete recovery, as a relapse often occurred after discharge from the asylum. When in cases of alcoholic indulgence the moral sense became perverted, no appeal to reason was of avail, and ordinary motives were inadequate to save the victim from the domination of the drink craving. At the London Asylum, Claybury, there were admitted during 1893-1903, inclusive, 9,544 persons, of whom 1,664 (965 males and 699 females) owed their insanity to drink. There are over 400 persons in retreats and reformatories for inebriety, and these represent only a small proportion of the inebriates of the country whose presence among the young is most injurious. Dr. Jones's experience of the treatment of drunkards in asylums is disappointing. When the patients are discharged they almost invariably relapse if they taste alcohol at all, and only a few afterward go through life without it.

Tramps and Smallpox.

Dr. H. E. Armstrong, health officer for Newcastle-on-Tyne, has issued a valuable report showing the great part played by tramps in the propagation of smallpox. As the result of an exhaustive inquiry made ten years ago he found that the disease was first introduced by vagrants into 58 per cent. of the 63 large towns from which returns were received, and was introduced by the same agents into 72 per cent. of these again and again, on an average about 5 times into each. As a result of the publication of these figures the London County Council convened a meeting of sanitary authorities, which passed a number of resolutions. These were communicated to the local government board, but nothing whatever was done. Early in the present year Dr. Armstrong addressed a circular containing ten questions to the health officers of 205 provincial cities, boroughs, and urban districts, with populations of 20,000 and upwards. Replies were received from 125, and they confirm entirely the results of the previous investigation. Of the districts making returns 111 have been visited by smallpox during the recent outbreak, and to 51 per cent. the disease was first conveyed by tramps. Further it was reintroduced at least 305 times by vagrants into 58 places, where it had previously appeared. It was carried 23 times to Sheffield in this manner, 24 times to Manchester, 31 times to Wakefield, and 34 times to Liverpool. An object lesson has recently been furnished from Cardiff. A tramp was admitted to the workhouse who had probably contracted the disease in a lodging house in Matlock. He had stayed subsequently at Chepstow and Newport workhouses. Most of the other occupants of the tramp ward were revaccinated, but a few refused. There are now several cases in the Cardiff isolation hospital. The health officer urges the necessity of parliament passing a bill compelling all tramps who can not produce evidence of recent vaccination to subject themselves to the process. But with the exaggerated ideas of the liberty of the subject for which this country is notorious and the strength of the anti-vaccinationists there is little probability of compulsory vaccination, even on a small scale, being enacted, however great be the necessity.

Chloroform in the South African War.

During the South African war deaths under chloroform occurred from time to time. Though the number was not excessive the suspicion arose that the chloroform might have deteriorated owing to some subtle changes, the result of heat, climate and other conditions incidental to active service, resulting in the production of substances which increased its toxicity. Of the original purity of the chloroform there was no doubt, as it was prepared from ethylic alcohol and sent out in the original bottles of one of the leading manufacturers. A number of samples of chloroform which had been used in South Africa, including portions of the chloroform under which death occurred, were submitted to Dr. Tunnicliffe, professor of pharmacology in King's College, London, as well as a sample returned from the China Field Force. He submitted a tissue especially susceptible to chloroform, viz., the cardiac muscle, to the action of the specimens. An excised rabbit's heart prepared according to Langendorf's method was perfused with an oxygenated sugar saline solution until the graphic record of the cardiac activity was constant. The heart was then perfused with a quantity of chloroform, to which 1 part in 6,000 of the chloroform to be tested had been added, and the record was taken. The heart was then immediately perfused with a known quantity of pure nutrient solution until the beats became normal. Then the heart was perfused with solution to which 1 part in 6,000 of pure chloroform had been added and the record taken. A large number of experiments were made. They showed that none of the samples differed from pure chloroform in toxic action on the heart, and that even the residues left after evaporation did not. In order to ascertain how the toxicity of originally pure chloroform is likely to be affected by conditions arising during military transit, it was subjected to the following manipulations: A sample was constantly shaken by means of a mechanical arrangement for several days. It was then exposed for several days to a temperature varying from 0 to 4 C.; subsequently it was exposed for several days to the direct July sunlight, and finally it was allowed to evaporate to half its bulk; part of the evaporation occurred quickly, the chloroform being subjected to a low pressure; part of the evaporation took place gradually, the chloroform being simply left open in the laboratory. The chloroform so treated was examined in the manner described and showed no effects different from that of pure chloroform. The conditions to which chloroform is likely to be subjected in warfare are not likely to be so violent. Hence the chloroform will probably not be affected. But Dr. Tunnicliffe recommends that it be not exposed during transit to strong light and be kept in as cool a place as possible in closely stoppered bottles.

An Ambulance Service for London.

The committee of the Metropolitan Street Ambulance Association has made the following suggestions for supplying London with an efficient street ambulance service—a long-felt want: 1. A controlling authority responsible for a uniform well-organized ambulance service under the government of the London County Council. 2. The division of London into districts, or "accident areas," with a properly organized ambulance service arranged in each, consisting of horse or motor as well as hand ambulances. 3. The conjoint carrying out of the fire brigade and the ambulance services. 4. The stationing of ambulances at or in connection with the principal hospitals. 5. Keeping the police efficient in first-aid training and making them available in rendering aid, summoning an ambulance, and

taking charge of the patient until the ambulance and attendant arrive. 6. The 800 fire-alarm telephone posts now existing, and all other telephones to be made available for calling ambulances. 7. The experience gained in New York, Chicago, Paris and other cities is more than sufficient to justify work on a scale large enough to provide for the removal of 13,000 to 15,000 casualties yearly.

Correspondence.

Pine Ridge Camp for Consumptives at Foster, R. I.

PROVIDENCE, R. I., April 1, 1904.

To the Editor:—Rhode Island started its first open-air camp for consumptives in June, 1903. The patients lived in the ordinary four-walled tent, the sides of which were kept rolled up except during violent rain storms. Twenty-two tents were pitched for living quarters, the cost of each being $15. An old barn served as a dining room, and a woodshed was used as a kitchen. From 25 to 35 patients were constantly under treatment, supported chiefly by contributions from the citizens of Providence. The same routine was followed in regard to treatment as practiced at other open-air camps, namely, living out of doors, good nourishing food and rest. The results were most gratifying. How to care for these patients in the winter was a question of importance owing to our limited resources. Unfortunately, there was not sufficient money in the treasury for the building of cottages, so the following plan was carried out: Individuals who had lost some member of their family or one of their friends by phthisis were asked to contribute $150 each for the erection of a cabin or shack as a memoriam. As a result of this plan, ten cabins were soon erected as illustrated in this article. They were built of yellow pine, 10 feet wide by 12 feet long, with sufficient light and ventilation, surrounded on three sides by a piazza 4 feet wide, and an attractive sign with the donor's name was placed on the door. The cabins were heated by a small coal stove in severe weather, and each cabin was occupied by two patients. These cabins were the most inexpensive serviceable quarters that we could put up. While considering this problem the idea occurred to us that unused street cars would make excellent living quarters for the consumptive. Two were donated by the Rhode Island Company. They were removed from their trucks, raised eighteen inches from the ground, refloored and provided with furnishings for one patient. These cars make excellent quarters because they are well built, provided with plenty of window space, and are capable of perfect ventilation. The consensus of opinion among patients is that they are more desirable than the ordinary cabin or shack. As consumption is pre-eminently a disease of the masses, and, therefore, requires a great expenditure of money on the part of cities and states to care for those afflicted, it certainly seems that the economic problem is one of great importance, and I believe that the unused street car, many of which are in the possession of the city traction companies, can be utilized as living quarters for the consumptive at much less expense, and that it is equally as serviceable as the modern cabin or cottage. The manager of the traction company of Providence told me recently that these unused cars sold for from $5 to $15 apiece. Camps could be started in the country in the vicinity of cities, capable of caring for many consumptives at a very small expense for equipment. Tents could be used from spring until fall, the patient using the street or trolley car for winter quarters. The results obtained in regard to treatment at the Pine Ridge Camp for consumptives, Foster, R. I., since its opening to December 1, 1903, is as follows:

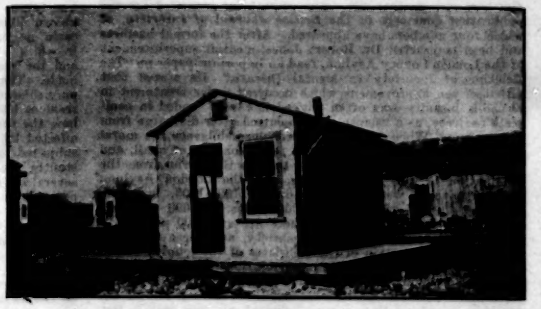
Street cars as living quarters for consumptives, Pine Ridge Camp, Foster, R. I.

There have been 59 patients under treatment for periods varying from two weeks to five months. Of these cases, there were admitted:

Incipient cases	8
Moderately advanced	15
Far advanced	36

Sixty per cent. of incipient cases were cured; in 30 per cent. of the moderately advanced cases the disease has been arrested; 14 per cent. of the far advanced cases show great improvement.

One hundred and eighty applications for admission have been received, many of which are at present on the waiting list.



Cabin at Pine Ridge Camp, Foster, R. I. Cost complete $150.

W. H. PETERS, M.D.

Johnson's Early Sign of Pregnancy.

WASHINGTON, D. C., April 23, 1904.

To the Editor:—Replying to the letter by Drs. L. M. Giffin and O. M. Gilbert, THE JOURNAL, April 23, page 1090, giving their experience with the Johnson early sign of pregnancy, I beg to say I noted the same condition, together with the intermittent softening, in Case 10, reported in my article in THE JOURNAL, Feb. 20, 1904, but made no mention of the softening and change in color of the fundus uteri observed in the laparotomy case because I was dealing solely with those conditions occurring in the intravaginal portion of the cervix uteri. I have received a large number of letters making inquiry con-

cerning the rhythm in intermittent hardening and softening and change in color of the cervix, but, I regret to say, I am not able to report on that important feature of the new sign, but hope to present a subsequent paper touching this fact in reporting subsequent observations. I thank Drs. Giffin and Gilbert for their timely observation and description and hope that other physicians will investigate the subject further. I claim that these changes in consistence and color observed in the fundus take place throughout the entire organ, consequently they occur in the cervix uteri and can be recognized on careful investigation. H. L. E. JOHNSON, M.D.

College Credit for Medical Study.

CHICAGO, April 27, 1904.

To the Editor:—I note in the letter from Dr. John Rogers, secretary of Cornell University Medical College, in THE JOURNAL, April 23, the statement that seven years are required to secure the bachelor's degree and the degree of M.D. May I ask if the Cornell University school now requires all students to take this combined course or if students are still admitted as formerly, with a high-school education, that is, the completion of forty-eight counts in the examinations conducted by the Regents of the State of New York? JOHN M. DODSON.

[The above was submitted to Dr. Rogers, who replies as follows.—ED.]

NEW YORK CITY, April 30, 1904.

To the Editor:—In reply to the letter of Dr. John M. Dodson, Cornell University Medical College admits students who have had a four years' high-school course, but requires that these students shall include in their preliminary education (and so in the 48 count regents' certificate required by law in New York State), algebra, plane geometry, United States history, two years of English and two years of Latin, including the first four books of Cæsar's Commentaries. A combined course of arts and medicine is optional at present. The number of those who take the combined course is, however, increasing each year in a very gratifying manner.

JOHN ROGERS, JR., Secretary.

Not Professor Forel's Assistant.

CHIGUY, SWITZERLAND, April 6, 1904.

To the Editor:—From August, 1879, until March, 1898, I was the director of the Burghölzli Insane Asylum and professor of psychiatry at the University of Zurich, and I desire to make the following statement:

Dr. Carl Bertuhringer, who designates himself a representative of the so-called Koenig Medicine Company of Chicago, and who incidentally represents himself as a former assistant to Professor Forel at the Burghölzli Asylum, was never my assistant and never an assistant at the Burghölzli Asylum. He did, indeed, study medicine in Zurich, and, like other students, studied psychiatry with me, and practiced in the clinic as a so-called *practikant*, as did other students. Under these circumstances I once permitted him to hypnotize one patient. But he was never either my asylum assistant or my private assistant, and hence has no right to publish himself as such.

Another Dr. Bertuhringer (Dr. Hans Bertuhringer) was actually assistant physician in Burghölzli and is now second physician at the Rheinau Asylum, Canton Zurich. But this is quite another person. DR. AUGUST FOREL.

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

THE USE OF ERGOT IN LABOR.

———, ———, April 15, 1904.

To the Editor:—In your query column I would like to briefly state the following case: Mrs. ———, a primipara, began having slight labor pains on Sunday, which recurred at intervals until Wednesday morning, when they came with more regularity and continued sufficiently strong and regular to prevent rest throughout the day. She slept from 9 p. m., Wednesday, until 1:30 a. m., Thursday, when pains again came on with considerable severity and continued to come about every 4 to 6 minutes, until 1 p. m., when an internal examination was made and dollar-sized dilatation found, the head occupying an L. O. A. position. At 3 p. m. the bag of waters broke and the pains became more frequent, but their character made it evident that not much progress was being made. The patient complained constantly and bitterly of continuous pain in the intervals, and had no rest and took no nourishment after 1:30 a. m. At 7 p. m. another internal examination was made, which showed absolutely the same conditions found at 1 p. m. It was then agreed that another physician should be asked to see the case, which was done. After satisfying himself of the conditions he ordered that a dram of ergot be given. At once, in the mind of the younger man, rose visions of three of the greatest teachers of obstetrics in America, all of whom he had heard say repeatedly: "Never, under any circumstances, give ergot until the uterus is empty," and it was with great reluctance that he complied with the older man's orders. Subsequent events, however, set his mind at ease, for inside of a half hour pains were coming regularly at three-minute intervals, were of excellent quality and the patient was resting nicely between pains, often sleeping. At 9 p. m. the baby was born, the placenta following 40 minutes later. It seemed that this one little dose of ergot transformed a tedious, exhausting, non-progressive labor into a perfectly normal one with the happiest results. Was it or was it not good obstetrics?

YOUNG PHYSICIAN.

ANSWER.—Ergot would be a valuable aid in obstetric practice to stimulate uterine contractions if it were not dangerous and uncertain. Its characteristic properties have been known for hundreds of years and at times it has been employed extensively. Now most authorities in obstetrics discourage its use because of its dangers. While a proper dose may simply stimulate contractions, increasing their strength and frequency only within safe limits, an excessive dose will cause constant or tetanic contractions. Such contractions, as is well known, are very dangerous to the child, because they shut off the blood supply of the uterus and thus disturb placental circulation and lead to intra-uterine asphyxia. Many still-births can be ascribed to this drug. Moreover, tetanic contractions of the uterus may lead to its rupture where there is some obstacle to the birth of the child.

It is not easy to specify the proper or safe dose of ergot because of the complicated composition of the drug. During the last twenty years several efforts have been made to determine its active principles, but so far with no agreement on results. Since we have no active principle and since the fluid extract varies in strength one should always use the most reliable preparation he can secure, and if it is used before expulsion of the placenta rather a small dose should be given. Moreover, if the physician contemplates giving ergot to increase labor pains he should assure himself that there is no obstacle to delivery and that the conditions are such that he can deliver rapidly in case tetanic contractions occur and the child is thereby threatened. After administering the drug he should remain with the patient to care for any emergency that may arise. With these rules of management clearly appreciated ergot may be used by a careful physician without danger and no doubt at times with advantage. At the same time one can understand that the drug should never be used by midwives, and that its careless use by physicians may be productive of great harm.

EQUAL TO LAWSON TAIT OR WILLIAM OSLER.

A correspondent sends us a copy of the *North Brookfield* (Mass.) *Journal* of March 11, 1904, in which appears a letter from a physician concerning the necropsy held on a patient in the presence of another physician, a nurse and a layman. The letter states in preface that "The sickness and death of our much respected citizen, ———, has cast a gloom over our townspeople, and has caused many to ask . . . . Could not there have been more done to save his life?" After expressing his regret that time and space do not permit a full and accurate description of the illness and death, the physician says: "I will simply state that the autopsy proved that the diagnosis I made the first day of Mr. ——'s illness was correct. Two days later my first diagnosis was verified by Dr. —— —— —— of ———, and later was confirmed by Dr. —— ——— of ———. Dr. —— informed the family on his arrival that no surgical procedure was then justifiable under the existing conditions, which judgment was proved by the autopsy to have been as reliable and correct as if given by the great Lawson Tait of England. The autopsy showed a large amount of ulceration in the right side where the obstruction occurred; two portions of the small intestines, one about four inches, and one about five inches in length were in a very much contracted and diseased condition; the appendix showed the result of previous inflammatory conditions, but at this time was intact and in proper condition. The immediate cause of sudden collapse and death in Mr. ——'s condition was probably due to an ulceration and perforation of the intestine, which was plainly seen at the autopsy. Therefore, at

the request of friends I submit this simplified report, trusting it will save her who has been left to mourn this great loss from further annoyance or questioning by kind friends and neighbors, who little realize the pain and sorrow that may be caused by offered suggestions, and wise predictions given by those who are best fitted to judge of their own actual needs. And to those who have taken it on themselves to question any judgment or treatment which has been used in this case, I can but say, in the words of the poet—'Still we gazed, and still the wonder grew, that one small head could carry all they knew.' Furthermore, by our knowledge, which we have proved correct, as the autopsy showed, and by the careful, conservative judgment given by Dr. ——, I feel justified in saying that Mrs. ——, as well as this whole community, may ever feel that had we been able to obtain the services of William Osler, the recognized authority of the Unnited States, or had we held in readiness the operative hand of the great Lawson Tait of England, we could now but bow our heads in submission, while our hearts cry out in their sorrow, 'Thy will be done.' Respectfully, — — ——, M.D.," The sender of the newspaper makes the following comment: "This strikes a lay reader as extraordinarily bad taste. 'Methinks my lady doth protest too much.'"

TREATMENT OF NURSING SORE MOUTH.

NORTH CAROLINA, April 25, 1904.

To the Editor:—Please give me the best treatment for nursing sore mouth (stomatitis)—a sure cure, a specific, if possible.

J. H. P.

ANSWER.—We are afraid that our correspondent, who wishes a "specific" or "sure cure," will have to apply to some one who deals in such things—a patent-medicine man or one of the journals that makes a specialty of specifics. Certain manufacturing chemists are also developing quite a line of these goods. A careful study of the causes of disease, of its clinical manifestations and of the influence exerted on it by carefully tried therapeutic agents leads to the safest line of treatment, but does not furnish "sure cure" prescriptions. Nursing sore mouth, like other parasitic diseases, depends on the presence of the disease-producing germ and the resistance of the tissues. The latter factor consists of two things: the local condition of the mucous membrane of the mouth and the general state of health of the child. The prevention of nursing sore mouth, therefore, depends on keeping the child strong and well nourished, avoiding injury to mucous membrane by rubbing off its tender epithelium in unnecessary efforts to clean the mouth, and on preventing contamination of the mouth with specific germs of thrush. The latter gain access to the mouth cavity in various ways, but probably most frequently from dirty nipples of nursing bottles, from sugar teats and from cloths and rags used by the nurse to "clean out" the mouth. The way to prevent such contamination suggests itself. When thrush is once developed measures to improve the general condition of the child should be at once instituted. The intestinal canal, which is generally in a diseased condition, should be cared for by the use of calomel, injections, etc., while errors in diet should be corrected. All sources of further contamination of the mouth, like sugar teats and dirty nipples, should be avoided. In the way of local treatment the mouth should be carefully washed before each nursing or feeding. The feedings should be at regular intervals and not too frequent. For the washing a solution of boric acid, soda bicarbonate or common salt may be used, or, perhaps, quite as well, sterile water. The object is to remove mechanically the necrosed patches and not to destroy the germs by any antiseptics. Much more depends on the method of washing than on the solution used. The child should be held so that a good light shines into his mouth, and the mouth should be held open so that the entire cavity is well seen. A soft, not too large, swab should be made by fastening sterile gauze to a sterile (i. e., boiled) stick. With this all inflamed or coated patches are carefully washed with the chosen solution. Conscientious and persistent management along these lines will result in a "sure cure" unless the child is in a very weakened state, with no tissue resistance, in which case gastrointestinal and other complications may lead to a fatal termination.

A PHYSICIAN'S CARD.

The following display ad occurs on a certain physician's card:

——— ——— ———, M.D.
Ex-Coronor.
Ex-Health Officer.
Ex-Lcl. R. R. Surgeon.
Member —— State Med. Soc'y.
Author "——— Pocket Anatomy."
Ex-Vice Pres. —— Medical Society.
Member American Medical Association.
Ex-Secretary Inter-State Medical Society.
Member Southeastern —— Med. Society.
United States Surgeon (Pension Department).
Ex-Supreme Med. Examiner, Mod'n American Life Insurance Co.
County Physician to St. ———'s Hospital, Poor Farm and Jail.
President Local Board of the ——— Children's Home and Aid Society.

PHYSICIAN AND SURGEON.

Member Med. Society of the College of Physicians and Surgeons, ———.
President Local Board of State Charities, Auxiliary to State Board of Health.
Special Lecturer on Anatomy in College of Physicians and Surgeons, ——, ——.

ETIQUETTE OF CALLS AMONG PHYSICIANS.

IOWA, April 25, 1904.

To the Editor:—Will you please have an answer to the following question printed in THE JOURNAL? I have recently located at ———, and wish to know whether it is my place to call on the other physicians in the town, or their place to call on me first. The other physicians hold that it is my place to call on them first, while I am of the opinion that I (being the stranger) should be the one called on. Please let me know which is correct.

W. T. S.

ANSWER.—It is an accepted custom for young physicians and newcomers to call on the older physicians and those of longer residence in the locality. It is a mark of respect and courtesy due from one locating in a new place. He thus announces his arrival and his desire to be received in professional circles and friendship. This question was considered in THE JOURNAL of Oct. 1 and 15, 1902.

THE ATLANTIC CITY SESSION.

EUREKA, KAN., April 28, 1904.

To the Editor:—1. What will be the railroad fare from Chicago to Atlantic City and return? 2. Will there be a special car or train from Chicago? If so, when? 3. Can one buy a railroad ticket and get stop-over privileges at Philadelphia to attend the clinics?

E. J. NORMAN.

ANSWER.—1. $20.25. 2. Yes, at least one. Sunday, June 5, 2 p. m. 3. Yes. See THE JOURNAL, April 30.

Marriages.

CLIFFORD SATER, M.D., to Miss Louella Teal, both of Cincinnati.

MICHAEL HOKE, M.D., to Miss Laurie Harrison, both of Atlanta, Ga., April 20.

PAUL E. BETHARDS, M.D., to Miss Elizabeth Merrill, both of Toledo, Ohio, April 26.

CHARLES M. PROCTOR, M.D., to Miss Clara Shute, both of Malden, Mass., April 12.

F. HOYT PILCHER, M.D., to CLARA BELLE PAGE, M.D., both of Winfield, Kan., April 22.

FERDINAND L. BENZ, M.D., Wheeling, W. Va., to Miss Broderick, at Baltimore, April 5.

JOHN F. SINCLAIR, M.D., Philadelphia, to Miss Gertrude May Wilson of New York, April 21.

RICHARD HENRY STUBBS, M.D., to Miss Ethelyn C. Burleigh, both of Augusta, Maine, April 20.

GEORGE W. SCHWABE, M.D., Columbia, Mo., to Miss Lulu M. Stotts of Smithton, Ind., April 13.

WILLIAM E. GROUND, M.D., West Superior, Wis., to Miss Lila C. Bell of Washburn, Wis., March 22.

FREDERICK J. WILL, M.D., Des Moines, Iowa, to Miss Ethel Aileen Israel of Boone, Iowa, April 14.

FRANK M. SHELTON, M.D., Independence, Kan., to Miss Vilotta Gilman of Independence, Mo., April 14.

ROBERT REES SINCLAIR, M.D., to Miss Beatrice Merwin Hanan, both of Westfield, N. J., April 12.

MARTIN M. LALLY, M.D., North Adams, Mass., to Miss Elizabeth Gertrude Nolan, at Baltimore, April 12.

LINDLEY H. ESHLEMAN, M.D., to Mrs. Mable I. Nelson, both of Marion, Ind., at St. Joseph, Mich., April 13.

HARRY ARTHUR MCDANIEL, M.D., Bonham, Texas, to Miss Lora Lyday Whiting of Bells, Texas, April 19.

JAMES FARNANDIS MITCHELL, M.D., to Miss Eliza Hutchinson Webb, both of Washington, D. C., April 20.

ARTHUR W. HERR, M.D., Cleveland, Ohio, to Miss Olga Dietrichs of Paris, France, at Cleveland, February 26.

EDGAR GARRISON BALLENGER, M.D., Atlanta, Ga., to Miss Nora Clark Gorman, at Catonsville, Md., April 20.

HENRY SABINE IZAKE, M.D., Williamstown, Mass., to Miss Bertha von H. Mundé of New York City, April 13.

NATHANIEL READ NORTON, M.D., New York City, to Miss Bertha d'Invilliers Weightman of Philadelphia, April 23.

JOHN DE B. WALBACH GARDINER, M.D., surgeon U. S. Army (retired), to Miss Emily Carrico, at Washington, D. C., April 4.

Deaths.

Benjamin F. Dodson, M.D. Cincinnati College of Medicine and Surgery, 1853, a member of the American Medical Association, Wisconsin State Medical Society, and Green Lake County Medical Society, a pioneer practitioner of that district and one of the most esteemed and beloved citizens of Berlin, Wis., died at his home in that place, April 12, after an illness of one year, aged 72. The cause of death is not positively determined, but the autopsy demonstrated a hemorrhagic and necrotic left kidney, and a diseased condition of both suprarenals.

Abram Miller Henkel, M.D. New York University, 1868, a member of the American Medical Association, Virginia Medical Society, and National Association of Railway Surgeons, a member of the board of trustees of the Western State Hospital, one of the most prominent residents of Staunton, Va., died suddenly at his home in that place, from Bright's disease, April 19, aged 60.

Charlotte Blake Brown, M.D. Woman's Medical College of Philadelphia, 1874, for thirty years a practitioner of San Francisco, and organizer of many societies for philanthropic and charitable purposes, died at the Adler Sanitarium, San Francisco, April 19, after an abdominal section for intestinal obstruction, aged 57.

Isaac T. Wilson, M.D. New York University, 1851, the oldest physician in Quincy, Ill., and one of the organizers of the Adams County Medical Society, died at his home in Quincy, April 24, from pneumonia, after an illness of one week, aged 79. The Adams County Medical Society attended the funeral in a body.

Edward E. Jenkins, M.D. Medical College of the State of South Carolina, Charleston, 1853, a member of the American Medical Association, an esteemed citizen of Palatka, Fla., died at his home in that city, April 18, from malignant disease of the neck, after a long and painful illness.

John B. Mahoney, M.D. Harvard University Medical School, Boston, 1887, a member of the Massachusetts Medical Society, and formerly city physician of Medford, died at his home in that town, April 26, from Bright's disease, after an illness of three years, aged 42.

Edward L. Trudeau, Jr., M.D., College of Physicians and Surgeons, New York City, 1900, of Saranac Lake, N. Y., died, May 3, at his New York City residence after an operation for pleurisy complicating a two weeks' illness with pneumonia.

Narcissus Heru Matas, M.D. New Orleans School of Medicine, 1859, father of Dr. Rudolph Matas of New Orleans, who had lived for several years at Tucson, Ariz., died at the home of his son, in New Orleans, from apoplexy, April 13, aged 67.

Arch. Vandeventer, M.D., a patient in State Hospital No. 1, Fulton, Mo., and formerly a practitioner in Audrain and Monroe counties, committed suicide at the hospital, April 17, by cutting his throat, aged about 60.

Joshua M. Carey, M.D. Eclectic Medical Institute, Cincinnati, 1862, at one time a member of the Pennsylvania legislature, a veteran of the Civil War, of Elmira, N. Y., died at Mount Vernon, N. Y., April 20, aged 70.

Fred Van Ackeren, M.D. University of Würzburg, Germany, 1898, was found dead in bed at his home in Elgin, Ill., April 26. Death is supposed to have been due to an overdose of morphin or cocain.

Robert McL. Read, M.D. Harvard University Medical School, Boston, 1877, formerly city physician of Boston, died in Los Angeles, Cal., where he had gone in search of health, April 21, aged 55.

Henry M. Cox, M.D. College of Physicians and Surgeons, New York, 1871, medical inspector in the health department for 20 years, died at his home in New York City, April 25, from pneumonia.

Ernest W. Salter, M.D. Bellevue Hospital Medical College, New York, 1892, of Stronghurst, Ill., died in Bayonne, N. J., April 23, from pneumonia, after an illness of six days, aged 34.

John Moore, M.D. Indiana, 1897, a member of the St. Joseph County (Ind.) Medical Society, died from pneumonia at his home in Lakeville, Ind., April 23, after a short illness, aged 67.

E. Hazard S. Hutchison, M.D. Bellevue Hospital Medical College, New York City, 1881, died at his home in New York City, from pneumonia, April 13, after an illness of six weeks, aged 44.

Sumner Paine, M.D. Gross Medical College, Denver, 1897, of Boston, died at the Massachusetts General Hospital, Boston, from locomotor ataxia, April 18, after a long illness, aged 36.

Samuel T. Evans, M.D. University and Bellevue Hospital Medical College, New York, 1904, died from diabetes, April 11, after an illness of one year, at Sherman, Texas, aged 25.

James L. Perryman, M.D. Medical Department of the University of Missouri, St. Louis, 1854, died at his home in Belleville, Ill., April 22, after an illness of several months, aged 73.

John J. Smith, M.D. College of Physicians and Surgeons, New York, 1869, died at his home in Yonkers, N. Y., April 20, from chronic bronchitis, after an illness of one month, aged 38.

Thomas E. Barry, M.D. New York University, 1897, of New York City, died in Utica, N. Y., April 26, from septicemia following an autopsy wound, after an illness of four months.

Edward N. Wilson, M.D. Rush Medical College, Chicago, 1887, of Portland, Ore., died at Chippewa Falls, Wis., April 7, from locomotor ataxia, after an illness of one year, aged 44.

Theodore Bange, M.D. Miami Medical College, Cincinnati, 1881, died at his home in Cincinnati, April 18, of diabetes, aged 45. He served as coroner of Hamilton County in 1890.

Isaac P. Alger, M.D., oldest physician in Branch County, Mich., who retired from active practice in 1899, died at his home in Coldwater, April 19, from apoplexy, aged 83.

William Piper, M.D. Starling Medical College, Columbus, Ohio, 1857, of Bellaire, Ohio, died recently in California, at the home of his daughter, after a long illness, aged 72.

Edward A. Hite, M.D. Eclectic Medical Institute, Cincinnati, 1898, of Kokomo, Ind., died at Hope Hospital, Fort Wayne, Ind., April 15, after an operation for gallstones, aged 32.

Lyman W. Denton, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1878, died suddenly at his home in Rivera, Cal., April 2, from heart disease, aged 56.

William H. Jackson, M.D. University of South Carolina, Columbia, 1873, died at his home in Springville, N. Y., April 6, from pneumonia, after a long period of ill health.

James W. Montgomery, M.D. Hospital College of Medicine, Louisville, 1884, of Paoli, Ind., died suddenly while in the courthouse in that place, April 19, from heart disease.

Charles E. Farnham, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1889, died at his home in Grand Ridge, Ill., April 19, from heart disease, aged 39.

Albert M. Tate, M.D. College of Physicians and Surgeons, Baltimore, 1899, died suddenly at the home of his father, in Elberton, Ga., April 17, from heart disease.

Harry A. Hakes, M.D. Castleton (Vt.) Medical College, 1846, a member of the legislature in 1865, died at his home in Wilkesbarre, Pa., from apoplexy, April 20, aged 78.

David D. Thomson, M.D. University of Louisville, 1849, for half a century a practitioner of Louisville, died at the home of his son in Dallas, Texas, April 21, aged 80.

Guilford W. McCray, M.D. Castleton (Vt.) Medical College, 1857, died from apoplexy at his home in Buffalo, N. Y., April 18, after an illness of one week, aged 73.

John Sprigg Poole, M.D. University of Maryland, Baltimore, 1887, died from influenza, at his home in Poolesville, Md., April 23, after an illness of one month, aged 40.

Lascellis Dysart, M.D. Medical Department of the University of Iowa at Keokuk, 1864, died suddenly at his home in Higbee, Mo., April 11, from heart disease, aged 65.

Andrew P. Cox, M.D. Cincinnati College of Medicine and Surgery, 1877, died at his home in Coraopolis, Pa., April 21, after an illness of six years, aged 59.

Ezra H. Ferris, M.D. Medical College of Ohio, Cincinnati, 1846, who retired from active practice 40 years ago, died at his home in Champaign, Ill., April 10, aged 82.

Darius M. Furman, M.D. Medical College of Indiana, Indianapolis, 1876, of Phoenix, Ariz., died at Los Angeles, Cal., April 8, after an extended illness, aged 50.

S. Wasson Jones, M.D. Long Island College Hospital, Brooklyn, 1872, died from consumption at his home in Newark, N. J., April 18, after a long illness, aged 54.

John M. Fladger, M.D. University of Nashville, 1887, of Manning, S. C., died at an infirmary in Sumter, S. C., April 24, from Bright's disease, after a long illness.

George E. Talbert, M.D. Ohio, surgeon of the Fourteenth Wisconsin Volunteer Infantry in the Civil War, died at his home in Beaver Dam, Wis., April 16, aged 75.

J. R. Edwards, M.D., a graduate of a medical college in Virginia, but never a practitioner, died at his home near Shiro, Texas, April 7, aged more than 80.

John G. Seneur, M.D. Bellevue Hospital Medical College, New York, 1878, died at his home in Troy, Ohio, April 21, from angina pectoris, after a brief illness.

Addison D. Elston, M.D. St. Louis Medical College, 1864, surgeon-major during the Civil War, died at his home in Jefferson City, Mo., April 22, aged 72.

Albert M. Younkin, M.D. Columbus (O.) Medical College, 1847, a retired practitioner of Florence, Kan., died at his home in that city, April 25, aged 79.

Kenneth F. Lane, M.D. Atlanta Medical College, 1895, died from pneumonia at his home in Montevallo, Ala., from lobar pneumonia, April 3, aged 32.

John A. Pearsall, M.D. New York Homeopathic Medical College and Hospital, 1876, died from diabetes at his home in Saratoga, N. Y., April 18, aged 53.

Patrick H. Evans, M.D. University of Michigan Homeopathic Medical College, Ann Arbor, 1880, died suddenly at his home in Jesup, Iowa, April 7, aged 71.

Franz Hugo Krebs, M.D. Harvard University Medical School, Boston, 1859, died at his home in Boston, April 22, after an illness of four months, aged 80.

Robert C. Lumsden, M.D. College of Physicians and Surgeons, New York, 1881, died recently from pneumonia, at his home in Rockaway, N. J., aged 44.

Thomas E. Murphy, M.D. Medical College of Alabama, Mobile, 1892, died at his home in Bethany, Ala., April 20, from pneumonia, aged 33.

Charles W. Bishop, M.D. University of Louisville, 1868, of Mattoon, Ill., died at Los Angeles, Cal., from rheumatism of the heart, April 7, aged 57.

T. H. Davis, M.D. Missouri Medical College, St. Louis, 1891, died at his home in East Atchison, Mo., April 20, after a lingering illness, aged 60.

David W. Ingalls, M.D. New York Homeopathic Medical College and Hospital, 1893, died at his home in Bridgeport, Conn., April 10, aged 35.

Joseph D. Sauls, M.D. Tulane University, New Orleans, died suddenly at his home in Saulsbury, Tenn., April 21, from heart disease, aged 71.

Camille A. Fortier, M.D. University of the Victoria College, Cobourg, Ont., 1881, died recently at his home in Florence, Wis., aged 70.

John Gordon, M.D. New York University, 1880, died at his home in West Park, N. Y., April 2, after an illness of more than a year.

J. K. Herman, M.D. Washington University School of Medicine, Baltimore, 1869, died at his home in Kossuth, Miss., April 16, aged 60.

Michael Tryon Livingood, M.D. Jefferson Medical College, Philadelphia, 1849, died at his home in Roseville, Ill., April 6, aged 79.

Bernhard Zartzin, M.D. Charkov, Russia, 1871, died at his home in Milwaukee, April 6, after an illness of several weeks, aged 57.

William F. Bozeellion, M.D. Jefferson Medical College, Philadelphia, 1855, died recently at his home in Monticello, Ark., aged 70.

Stephen O. Himoe, M.D. St. Louis Medical College, 1856, died at his home in Kansas City, Mo., April 19, from pneumonia, aged 72.

Andrew Coursen Sawyer, M.D., a surgeon in the Navy during the Civil War, died at his home in Albany, N. Y., April 16, aged 67.

George M. Lyman, M.D. Physio-Medical College, Cincinnati, 1865, died at his home in Croton, Ohio, April 16, from influenza, aged 63.

George H. Goltry, M.D. University of Buffalo, 1860, died at his home near Irelandville, N. Y., April 16, after a long illness, aged 71.

Isadore E. Prevost, M.D. Columbia Medical College, New York, 1839, died at his home in Rochester, N. Y., April 16, aged 96.

Charles F. Bruckner, M.D. University of Würzburg, Germany, 1852, died suddenly at his home in Cincinnati, April 25, aged 75.

James Harley Miller, M.D. Kansas City Medical College, 1892, died at his home in Newkirk, Okla., April 11, after a short illness.

David W. Edwards, M.D. Atlanta Medical College, 1866, died recently from pneumonia at his home in Wilsonville, Ala.

Amos Newton Stout, M.D. Kentucky School of Medicine, Louisville, 1880, died recently at his home in Ava, Ill., aged 44.

William B. McCormick, M.D. Medical College of Ohio, Cincinnati, 1837, died recently at his home in Foster, Ky., aged 91.

B. F. Edmundson, M.D. University of Louisville, 1871, of Edmunds, Tenn., died at Trenton, Tenn., April 12, aged 60.

James Weed, M.D., one of the earliest settlers of Muscatine, Iowa, died at his home in that city, April 20, aged 90.

Thomas M. Winters, M.D. University of Michigan, Ann Arbor, 1887, died recently at his home in Lansing, Mich.

Samuel Alexander Kell, M.D., of Fort Mill, S. C., died at Ardreys, N. C., April 10, after a long illness, aged 63.

Timothy D. Lougher, M.D. State University of Iowa, Iowa City, 1875, died at his home in Adair, Iowa, April 3.

Bernard Vogel, M.D., Germany, of Baltimore, died suddenly in that city from Bright's disease, April 14, aged 57.

W. R. Harrington, M.D. Meharry Medical College, Nashville, Tenn., 1900, died recently at his home in Paris, Ky.

Level B. Allen, M.D. Minnesota, died suddenly at his home in Minneapolis, April 13, from heart disease, aged 75.

Thomas J. Foster, M.D. Atlanta (Ga.) Medical College, 1860, died at his home in Dallas, Ga., April 7, aged 70.

Gosta Anred-Nordin, M.D., was found dead at his home in New York City, April 11, from chloral poisoning.

Goldsmith Goodin, M.D., died at his home in Coxville, Ind., April 12, from intestinal tuberculosis, aged 73.

D. R. Leech, M.D. Atlanta (Ga.) Medical College, 1855, died at his home in Charlotte, Tenn., April 23.

Henry T. Terlinden, M.D. Medical College of Ohio, Cincinnati, 1897, of Cincinnati, died recently.

S. O. Tillar, M.D., founder of Tillar, Ark., died in that place, April 16, after a short illness.

James S. Stevens, M.D., died at his home in Kensington, Philadelphia, April 23, aged 70.

T. R. Rogers, M.D., died at his home in Moundsville, W. Va., April 10, aged 72.

S. C. Ingersoll, M.D., died at his home in Deer Lodge, Mont., April 24, aged 91.

James H. Carty, M.D., died April 18 at Leominster, Mass., aged 92.

Book Notices.

A MANUAL OF FEVER NURSING. By Reynold Webb Wilcox, M.A., M.D., LL.D., Professor of Medicine in the New York Post-Graduate Medical School and Hospital. Illustrated. Cloth. Pp. 236. Price, $1.00. Philadelphia: P. Blakiston's Son & Co. 1904.

This is another work written for the professional nurse and appears to contain all the general knowledge which is properly required in addition to general instruction in the functions of the nurse so far as regards this particular class of diseases of which it treats.

THE PRACTITIONER'S GUIDE TO THE DIAGNOSIS AND TREATMENT OF DISEASES OF WOMEN. By Gustavus M. Blech, Professor of Operative Surgery, Jenner Medical College. Cloth. Pp. 112. Price, $1.00. Chicago: M. Robertson & Co. 1903.

This is an exceedingly brief work. It is quite an undertaking in a certain sense of the word to attempt to put the whole subject of gynecology into a little over one hundred, not too closely printed, pages, including also numerous space taking illustrations.

SONGS OF ALL THE COLLEGES, INCLUDING MANY NEW SONGS. Compiled and Arranged by David D. Chamberlain (Harvard) and Karl P. Harrington (Wesleyan). Cloth. Pp. 330. Price, $1.50, postpaid. New York: Hinds & Noble.

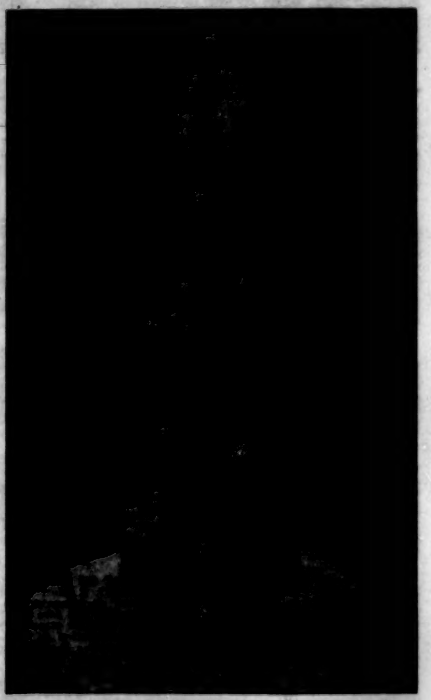
Comment is often made on the fact that there is less college spirit among students in technical and professional schools than among those in colleges of liberal arts. This no doubt helps to cause the lack of *esprit de corps* among the profession. College spirit will be a stimulant to united action by the profession, and one of the great incentives to college spirit is college song. We commend this book to our many student readers and to the members of alumni associations. It is well gotten up and the songs are well selected to represent the whole college world.

Association News.

THE ATLANTIC CITY SESSION.

Fifty-fifth Annual Session of the American Medical Association, To Be Held at Atlantic City, N. J., June 7-10, 1904.

Particulars of the Atlantic City session were given in THE JOURNAL April 30, pages 1156 to 1173, including the provisional list of papers to be read before each section, lists of hotels and meeting places, railroad rates, a list of clinics to be held at Philadelphia, and a description of the attractions of Atlantic City. Attention is called to the fact that railroad tickets in the territory of the Western Passenger Association will be on sale only on June 1, 2, 4 and 5, and will be good returning not later than June 13, unless extended.



THE RUSH MONUMENT, WASHINGTON, D. C.
(See THE JOURNAL, April 30.)

Miscellany.

Clippings from Lay Exchanges.

A SPECIALIST IN HERPES ZOSTER.

"Henry —— has quit cutting shingles and gone to practicing medicine."—*Washington* (Ind.) *Democrat*, March 5, 1904.

HE REARRANGED THE ARTERIES.

"—— awoke about three months ago to find that he could not see out of one eye. . . . Several oculists . . . agreed that his eye had been paralyzed and that he would never see again. . . . Two weeks ago, however, Dr. —— a prominent eye specialist from the Academy of Medicine in Berlin arrived in Covington . . . and agreed to take charge of the case. . . . Dr. —— declared the blindness due to a dislocated artery behind the eyeball, which could be cured by an operation. The German specialist took out the eye, rearranged the arteries and then reset the eye-ball."—*New York Herald*, March 13, 1904.

THE NEW NOMENCLATURE.

"A paper was read by Dr. —— on 'Germatitis Medica Mentosie.'"—*Danville* (Ill.) *Commercial*, March 15, 1904.

A CASE OF NEURITIS A LITTLE OFF COLOR.

"A Brooklyn milk dealer has secured a verdict of $5,000 against the city. . . . He claimed to have sustained chromatic neuritis of the nerves and muscles of the left side."—*Sioux City Journal*, Feb. 23, 1904.

CASH OR CALCULI?—RESULTS OF HYSTERIA.

"Dr.—— . . ., submitted some specimens of rocks removed from one of his patients and a very interesting discussion on the manifestations of hysteria followed."—*Tulare* (Cal.) *Register*, March 8, 1904.

HARD RUBBER RIBS.

"—— has undergone a remarkable surgical operation. . . . Pneumonia left him with a persistent formation of pus in the pleural cavity. To relieve him, the surgeons removed the sixth and seventh ribs on the right side, and in their place substituted hard-rubber tubes to drain the chest. . . . The patient is convalescing."—*Oregonian*, Portland. "They expect new ribs to be grown to take the place of those removed."—*Cleveland Leader*, March 31, 1904.

TOO OFTEN ABNORMAL.

"Mrs. ——, on whom Dr. —— performed an abnormal surgical operation known as ovariotomy, Dec. 4, is making a rapid recovery."—*Neosa* (Ill.) *News*.

State Boards of Registration.

COMING EXAMINATIONS.

Mississippi State Board of Health, Jackson, May 10-11. Secretary, J. F. Hunter, M.D., Jackson.

State Board of Medical Examiners of South Carolina, State House, Columbia, May 17. Secretary, B. C. Baker, Sumter.

University of the State of New York, State Medical, Homeopathic and Eclectic Boards, New York, Albany, Buffalo and Syracuse, May 17-20.

Board of Medical Examiners of the State of North Carolina, Raleigh, May 18. Secretary, G. W. Pressly, Charlotte.

Nebraska State Board of Health, June 1-2, Creighton Medical College, Omaha. Secretary, Geo. H. Brash, M.D., Beatrice.

New Mexico Board of Health, Santa Fe, June 6. Secretary, D. R. Black, M.D., Las Vegas.

Iowa State Board of Medical Examiners, June 6-7, Des Moines, June 9-10, Iowa City. Secretary, J. F. Kennedy, M.D., Des Moines.

Michigan State Board of Registration in Medicine, Lansing, June 14. Secretary, B. D. Harison, M.D., Sault Ste. Marie.

Ohio State Board of Medical Registration and Examination, Columbus, June 14-16. Secretary, Frank Winders, M.D., State House, Columbus.

New Jersey State Board of Medical Examiners, June 21-22, Trenton. Secretary, E. L. B. Godfrey, M.D., Camden.

Medical Society of Delaware, Dover, and the Homeopathic Medical Society of Delaware State and Peninsula, Wilmington, June 21. Secretary Medical Council, P. W. Tomlinson, M.D., Wilmington.

Medical Examining Board of Virginia, June 21-24, Richmond. Secretary, R. S. Martin, M.D., Stuart.

State Medical Society of Pennsylvania, June 28 30, Philadelphia and Pittsburg. Secretary, Isaac B. Brown, M.D., Harrisburg.

Iowa Provides for Reciprocity.—The legislature of Iowa has empowered the Iowa State Board of Medical Examiners to allow physicians to register without examination when they come from states whose requirements for certificates are equal to those of Iowa. The system will not be in operation until certain practical details are arranged. The addition to the law is in part as follows:

(a) A certificate of registration showing that an examination has been made by the proper board of any state, on which an average grade of not less than 75 per cent. was awarded, the holder thereof having been at the time of said examination the legal possessor of a diploma from a medical college in good standing in this state, may be accepted in lieu of examination, as evidence of qualification, but in case the scope of said examination was less than was prescribed by this state, the applicant may be required to submit to a supplemental examination in such subjects as have not been covered. (b) A certificate of registration, or license issued by the proper board of any state, may be accepted as evidence of qualification for registration in this state, provided, that the holder thereof was, at the time of such registration, the legal possessor of a diploma issued by a medical college in good standing in this state, and that the date thereof was prior to the legal requirement of the examination test in this state. The fee for such registration shall be $50.

A further provision makes this apply only to states which reciprocate.

North Dakota April Report.—Dr. H. M. Wheeler, secretary of the North Dakota State Medical Examining Board, reports that at the written examination held at Grand Forks, April, 1904, 10 candidates were examined in 13 subjects and a percentage of 75 was required; 6 passed and 4 failed.

PASSED.	Year Grad.	Per Cent.
Rush Medical College, Chicago	(1901)	88
Illinois Medical College, Chicago	(1901)	83
College of Physicians and Surgeons, Chicago	(1902)	77
Starling Medical College, Ohio	(1896)	75
University of Minnesota	(1903)	78, 87

Those who failed were graduates of Barnes Medical College, St. Louis; Marion-Sims Medical College, St. Louis; College of Physicians and Surgeons, Chicago, and Wisconsin College of Physicians and Surgeons.

California April Report.—Dr. Geo. G. Gere, secretary of the Board of Medical Examiners of the State of California, reports that at the written examination held at San Francisco, April 5 to 7, 1904, 90 questions were asked on 9 subjects, and a percentage of 75 was required. Of the 62 who were examined 45 passed, 16 failed and 1 was conditioned.

PASSED.	Year Grad.	Per Cent.
Cooper Medical College, San Francisco	(1903)	77.5, 79.9
University of California, (1903) 82.5, 82.8, 84.4, 84.5, 81.3, 86.6, 87.1, 79.4, 85.5, 79.7		
College of Physicians and Surgeons, California, (1902) 76.4, 81.7, (1903) 78.5, 78.5, 78.		
Rush Medical College, Chicago, (1894) 77.4, 76.2, (1896) 80.8, (1897) 78.4, 83.4, (1901) 85, 92.2, (1902) 83.6.		
College of Physicians and Surgeons, Chicago, (1899) 87.6, (1900) 81.3, (1902) 78.8.		
University of London	(1895)	91.6
Medico-Chirurgical College, Philadelphia	(1894)	78.3
University of Minnesota	(1903)	79.3
Bellevue Hospital Medical College, New York	(1878)	77.1
Baltimore Medical College	(1901)	76.5
Woman's Medical College, Philadelphia	(1902)	84.4
University of Michigan	(1902)	84.5
Tufts Medical College, Boston	(1901)	75.0
Barnes Medical College, St. Louis	(1898)	79.1
Georgetown University, District of Columbia	(1900)	81.4
Michigan College of Medicine	(1901)	81.8
University of Vienna, Austria	(1891)	85.1
Starling Medical College, Columbus, Ohio	(1895)	81.1
American Medical Missionary College, Illinois	(1903)	88.1
New York Homeopathic Medical College	(1896)	75.1

FAILED.		
University of Louisville, Kentucky	(1880)	38.3
Rush Medical College, Chicago	(1878)	70.6
St. Louis Medical College, Missouri	(1877)	53.2
Detroit College of Medicine	(1897)	34.3
University of Dublin, Ireland	(1901)	70.4
College of Physicians and Surgeons, Chicago	(1892)	71.8
Laura Memorial Medical College, Ohio	(1905)	63.4
Tufts Medical College, Boston	(1897)	60.8
Western Pennsylvania Medical College	(1889)	69.4
Bellevue Hospital Medical College, New York	(1878)	46.1
Meharry Medical College, Tennessee	(1884)	22.3
Trinity Medical College, Ontario	(1884)	75.7
College Medicine and Surgery, Michigan	(1901)	73.5
Trinity University, Texas	(1903)	69.3
College Physicians and Surgeons, New York	(1896)	68.0
Ohio Medical College	(1902)	72.1

CONDITIONED.		
Columbia College, New York	(1888)	75.0

New Hampshire March Report.—Dr. Channing Folsom, regent, reports for the State Boards of Medical Examiners for New Hampshire, that at the written examination held at Concord, March 1 and 2, 1904, 70 questions were asked on 7 subjects, and a percentage of 75 was required. Of the 18 who were examined 13 passed and 5 failed, as follows:

PASSED.	Year Grad.	Per Cent.
Harvard Medical School, (1899) 83.80, (1901) 85.7, (1903) 78.93, 75.5, 81.79, 76.		
University of New York City	(1887)	81.79
Tufts Medical College, Boston	(1903)	75.20
University of Vermont	(1902)	76.64
College of Physicians and Surgeons, Boston	(1903)	81.79
Dartmouth Medical College	(1904)	78.07
Boston Univ. School of Med.	(1900) 85.80, (1902)	*84.40

FAILED.		
Bellevue Hospital Medical College, New York	(1894)	68.43
Maryland Medical College, Baltimore	(1903)	65.71
University of Vermont	(1891)	69.21
Laval University, Montreal	(1902)	†58.80
Tufts Medical College, Boston	(1903)	‡38.50

*Also a graduate of Harvard, 1903. †Third examination. ‡Second examination, took only four subjects.

Montana April Report.—Dr. W. C. Riddell, Helena, secretary of the Board of Medical Examiners of Montana, reports that at the written examination held at Helena, April 5 and 6, 1904, 50 questions were asked on 10 subjects, and a percentage of 75 was required. Of the 13 who were examined 6 passed and 7 failed, as follows:

PASSED.	Year Grad.	Per Cent.
University of Turin, Italy	(1900)	91.9
Northwestern University Medical School, Chicago	(1903)	83.7
University of Michigan	(1901)	79.5
American Medical Missionary College, Chicago	(1900)	96.3
College of Physicians and Surgeons, Keokuk, Iowa	(1898)	82.4
College of Physicians and Surgeons, Baltimore	(1898)	85.5

FAILED.		
Hospital College of Medicine, Louisville	(1902)	58.7
Dunham Medical College, Chicago	(1901)	64.0
University of New York	(1884)	*37.8
Dalhousie University, Halifax, N. S.	(1900)	64.7
Imperial Alexander University, Finland	(1894)	65.7
Detroit College of Medicine	(1897)	61.9
College of Physicians and Surgeons, Baltimore	(1893)	60.4

*Second examination.

Vermont Report.—Dr. S. W. Hammond, secretary of the Vermont State Board of Medical Censors, reports that at the written examination held at Burlington, Jan. 13-14, 1904, 80 questions were asked on 8 subjects, and a percentage of 75 was required. All 3 that were examined passed. Two were graduates of the University of Vermont in the year 1903, and one in 1901; their grades were 75, 81 and 85 respectively. The questions asked were as follows:

MATERIA MEDICA AND THERAPEUTICS.

1. Name the drugs that cause eruptions of the skin. 2. Give the dose of aconite, veratrum viride, belladonna, nux vomica, chloral hydrate and morphia. 3. Write a prescription for acute bronchitis. 4. Name the mydriatics. What is meant by the term? 5. Give the source and action of ergot. 6. Name the general and local anesthetics. 7. Give the composition of Dover's powder and its uses. 8. Name some of the internal antiseptics. 9. What do you understand by the incompatibility of drugs? Give examples. 10. Define the terms antipyretic, analgesic, hypnotic, anesthetic and antispasmodic and give examples of each.

OBSTETRICS.

1. Give the signs of pregnancy. 2. Name some of the principal diseases of pregnancy. 3. Give the fetal circulation. 4. Give the diameters of the fetal head. 5. Give the treatment of abortion. 6. Name six different presentations. 7. Name the varieties of placenta previa. 8. Name the causes of post-partum hemorrhage and give treatment. 9. Give the symptoms of puerperal septicemia and its cause. 10. Give the treatment for ruptured perineum following labor.

PRACTICE OF MEDICINE.

1. Give the etiology, pathology and symptoms of pneumonia. 2. What is arteriosclerosis? Its significance? 3. Give the etiology, pathology and symptoms of typhoid fever. 4. Name some of the rational signs of disease. 5. Name some of the physical signs of disease. 6. Name some of the causes of dyspnea. 7. Give symptoms and treatment of acute cystitis. 8. What is otitis media and its danger? 9. What is meant by the terms infection, contagion, sidus, crisis and lysis? 10. Write a short article on the prophylaxis of pulmonary tuberculosis.

SURGERY.

1. How would you treat a simple fracture of the lower jaw? 2. How would you treat a fracture of the clavicle? 3. How would you reduce a dislocation of the ulna backward on humerus? 4. How would you treat a fracture of both bones of the fore arm? 5. How would you treat an ordinary pleurisy? How an empyema? 6. How would you treat the man mentioned in Question 6, Pathology? 7. Give treatment for perinephritic abscess. 8. In what cases is paracentesis abdominalis advisable? Describe operation. 9. Suppose that in a gunshot wound of the inside of the thigh near the middle a profuse hemorrhage suddenly occurred two or three weeks after injury, what would you do? 10. In case of gangrene of the leg in consequence of a thrombus in the popliteal artery, where is "the line" likely to form? What would you do and when?

PATHOLOGY.

1. What displacements are likely to occur in fractures of the lower jaw? 2. What are the displacements and symptoms in fractures of the clavicle? 3. Give symptoms of dislocation of the ulna backwards on the humerus. 4. What deformity and disability is liable to occur after an improperly treated fracture of both bones of the forearm? 5. Give differential diagnosis and course of pneumonia, pleurisy, bronchitis and phthisis. 6. Supposing the man mentioned in Question 6, Anatomy, was picked up on a battlefield, 48 hours after injury, with the feces exuding from his wound, but without shock or fever, what would be your prognosis? 7. What is pyelitis? Its most common causes and symptoms? 8. In melanosis originating in the small intestines, where are the secondary deposits most likely to be found? 9. What accidents are liable to follow ligation of the femoral artery? 10. What is liable to occur after occlusion of the popliteal artery by an embolus or thrombus, and what are the early symptoms?

PHYSIOLOGY.

1. Describe the blood supply of bone. 2. Name the varieties of muscle fiber and give examples. 3. Give the composition of the blood. 4. Give the differences between arterial and venous blood. 5. Give the minute anatomy of a vein coat. (b) Of an arterial coat. 6. What and where are Brunner's glands? (b) Peyer's glands? 7. Explain the functions of the bile. 8. Describe the thoracic duct. 9. Give the structure of the spinal cord. 10. Describe afferent and efferent nerve impulse.

CHEMISTRY.

1. Define electrolysis. 2. Write the full names of the elements represented by the following symbols: K, Ni, Si, Sb, S, Na, Mg, Pb, Au, I, Co, Mn, Hg, Ag, Fl, P. 3. Which is the most abundant of the elements? Give its physical characteristics. 4. What is H_2O_2 and what are its uses in medicine? 5. How does chlorid of lime act as a disinfectant? 6. In what ways is Epsom salt eliminated from the body? 7. Tell all you know about butyric acid. 8. A urine contains pus and gives an albuminous reaction. How will you determine whether such albumin be due to the pus alone and not to nephritis as well? 9. What pathologic change produces bile in the urine? (b) Give a test for bile in urine. 10. What do oxalate of lime crystals in the urine signify? (b) Uric acid crystals?

ANATOMY.

1. Briefly describe the histology of the skin. 2. To what organs are the pneumogastric nerves distributed? 3. Make a diagram of an anterioposterior, vertical section of the eye. 4. Describe the gross anatomy of the lungs. 5. Give the course of the circulation through the heart. 6. Make a diagram of the femur, indicating the points of insertion and lines of traction of the muscles likely to cause displacements in fractures near the middle of the bone. 7. Enumerate in order, from before backward, the different tissues divided in amputating the leg midway between the knee and the cipal changes in its course. 9. At what part of the abdominal wall is the tenderness most marked in typhoid fever and what viscera are situated beneath? 10. Make a diagram of and describe the tibia, with its relations to the fibula and the outer bones with which it articulates.

The Public Service.

Army Changes.

Memorandum of changes of station and duties of medical officers, U. S. Army, week ending April 30, 1904:

Schreiner, E. R., asst.-surgeon, granted three months' leave to take effect when a medical officer is sent to Fort McHenry, Md., to relieve him.

Little, William L., asst.-surgeon, granted twenty-one days' leave of absence.

Comegys, Edward T., deputy surgeon general, relieved from duty at U. S. General Hospital, Fort Bayard, N. M., and will proceed to Manila, P. I., for duty on transport to sail from San Francisco about June 1.

Crabtree, Geo. H., asst.-surgeon, granted two months' leave, to take effect on May 30, 1904.

Wilcox, Timothy E., asst.-surgeon general, retired as brigadier general, U. S. Army.

Harvard, Valery, deputy surgeon general, promoted to asst.-surgeon general, with rank of colonel, U. S. Army.

Corbusier, Wm. H., surgeon, promoted to deputy surgeon general, U. S. Army, with rank of lieutenant colonel, U. S. Army.

Kieffer, Charles F., asst.-surgeon, promoted to surgeon, with rank of major, U. S. Army.

Crabtree, Geo. H., asst.-surgeon, detailed for duty in connection with the Military Athletic Tournament, Madison Square Garden, New York City, N. Y., May 2.

Hughes, Leonard S., contract surgeon, at San Francisco, has been assigned to temporary duty at Fort Baker, Cal., when services are not needed in California he will return to duty in the Philippine Division, from which he has recently been on leave in the United States.

Adair, George F., contract surgeon, ordered from Fort Wadsworth, N. Y., to temporary duty at Fort Hamilton, N. Y.

Goe, Almon P., contract surgeon, granted an extension of one month to his leave of absence from the Philippine Division.

Tigner, Edwin P., contract dental surgeon, granted leave of absence for fifteen days, about April 30.

Navy Changes.

Changes in the medical corps, U. S. Navy, for the week ending April 29, 1904:

Hull, H. F., Wickes, G. L., Zalesky, W. J., asst.-surgeons, appointed assistant surgeons with the ranks of lieutenant junior grade, from April 13, 1904.

Strite, G. E., A. A. surgeon, ordered to the Naval Recruiting Station, Baltimore.

Balch, A. W., asst.-surgeon, detached from the *Machias* and ordered home and to await orders.

Beaman, W., asst.-surgeon, detached from the *Don Juan de Austria*, and ordered home and to await orders.

Grunwell, A. G., surgeon, sick leave further extended two months from May 2.

Payne, J. H., P. A. surgeon, detached from the Naval Hospital, San Juan, P. R., and ordered to the *Marietta*.

Ohnesorg, K., P. A. surgeon, detached from the Naval Hospital, Boston, and ordered to the *Topeka*.

Idle, J. R., asst.-surgeon, detached from the *Topeka* and ordered home and to await orders.

Stuart, A., asst.-surgeon, detached from the *Marietta* and ordered to the Naval Hospital, San Juan, P. R.

Strine, H. F., asst.-surgeon, detached from the *Annapolis* and ordered to the *Helena*.

Backus, J. W., asst.-surgeon, detached from the *Helena* and ordered to the *Annapolis*.

Marine-Hospital Service.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended April 28, 1904:

Pettus, W. J., asst.-surgeon general, granted leave of absence for seven days from April 26.

Cobb, J. O., surgeon, granted leave of absence for four months from May 1, 1904.

Wertenbaker, C. P., surgeon, to proceed to Toomey, Waterall, Logansport and Greenwood, La., for special temporary duty.

Rosenau, M. J., P. A. surgeon, one day's leave of absence, April 28, 1904, under Paragraph 180 of the Regulations.

Anderson, J. F., P. A. surgeon, granted leave of absence on account of sickness, for seventeen days from April 5.

Berry, T. D., asst.-surgeon, granted leave of absence for three days from April 22, 1904, under Paragraph 191 of the Regulations.

Hunt, Reid, pharmacologist, to proceed to New York for special temporary duty.

Alexander, E., A. A. surgeon, granted leave of absence for ten days from May 1.

Bailey, C. W., A. A. surgeon, department letter granting leave of absence for eleven days from April 22, 1904, amended to read eleven days from April 24.

Ballard, J. C., A. A. surgeon, granted leave of absence for ten days from May 5.

Goldsborough, B. W., A. A. surgeon, granted leave of absence for three days from April 27.

Rodman, J. C., A. A. surgeon, bureau letter granting leave of absence for six days from April 12, amended to read one day from April 13.

Rodman, J. C., A. A. surgeon, granted leave of absence for five days from April 26.

Watters, M. M., pharmacist, granted leave of absence for five days from May 3.

PROMOTIONS.

Richards, T. F., asst.-surgeon, is commissioned as P. A. surgeon, to rank as such from March 11.

King, W. W., asst.-surgeon, commissioned as P. A. surgeon, to rank as such from March 13.

BOARDS CONVENED.

Board convened to meet at Stapleton, N. Y., April 23, 1904, for the examination of an officer of the Revenue-Cutter Service. Detail for the board: Surgeon Preston H. Bailhache, chairman; P. A. Surgeon A. C. Smith, recorder.

Board convened to meet at Washington, D. C., April 25, 1904, for the physical examination of an applicant for admission into the Revenue-Cutter Service. Detail for the board: Asst.-Surgeon-General L. L. Williams, chairman; Asst.-Surgeon-General W. J. Pettus, recorder.

Board convened to meet at San Francisco, May 9, 1904, for the physical examination of an officer of the Revenue-Cutter Service. Detail for the board: P. A. Surgeon W. G. Stimpson, chairman; Asst.-Surgeon Carl Ramus, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the period from April 15 to April 29, 1904:

SMALLPOX—UNITED STATES.

California: Los Angeles, April 2-9, 2 cases; San Francisco, April 3-10, 2 cases.
Florida: Jacksonville, April 9-23, 6 cases.
Illinois: April 9-23, Chicago, 11 cases; Danville, 6 cases.
Indiana: South Bend, April 9-23, 7 cases, 1 death.
Kentucky: Covington, April 9-23, 3 cases; Louisville, April 1-14, 5 cases.
Louisiana: New Orleans, April 9-16, 3 cases.
Maryland: Baltimore, April 9-23, 11 cases.
Michigan: Detroit, April 9-23, 7 cases; Grand Rapids, April 16-23, 1 case; 87 localities, April 9-16, present.
Missouri: St. Louis, April 9-23, 22 cases, 2 deaths.
Nebraska: Omaha, April 9-23, 2 cases.
New Hampshire: Manchester, April 9-16, 1 case.
New Jersey: April 9-23, Camden, 5 cases; Trenton, 2 cases.
New York: Buffalo, April 16-23, 7 cases; New York, April 9-23, 3 cases.
Ohio: Cincinnati, April 8-15, 5 cases, 1 death; Cleveland, April 8-22, 3 cases, 1 death; Dayton, April 9-23, 14 cases, 2 deaths.
Pennsylvania: April 16-23, Allentown, 3 cases; Philadelphia, 32 cases, 9 deaths; Williamsport, 1 case; April 9-23, Johnstown, 3 cases, 1 imported; Pittsburg, 9 cases, 1 death, 1 imported.
South Carolina: Greenville, April 9-16, 2 cases.
Tennessee: April 9-23, Memphis, 40 cases; Nashville, 11 cases.
Wisconsin: Milwaukee, April 9-23, 31 cases.

SMALLPOX—INSULAR.

Porto Rico: San Juan, March 1-31, 11 cases.

SMALLPOX—FOREIGN.

Austria: Prague, March 26-April 9, 8 cases.
Belgium: Antwerp, March 26-April 2, 24 cases, 3 deaths; Brussels, April 2-9, 2 deaths.
Brazil: Pernambuco, March 1-15, 20 deaths; Rio de Janeiro, March 13-27, 121 cases, 75 deaths.
Canada: Sydney, April 16-23, 54 cases, 1 death; Winnipeg, April 8-15, 1 case.
China: Shanghai, March 6-19, 22 deaths.
France: Marseilles, March 1-31, 14 deaths; Paris, April 2-9, 17 cases, 1 death.
Great Britain: April 2-9, Cardiff, 1 case; Edinburgh, 3 cases; Leeds, 3 cases; Newcastle-on-Tyne, 4 cases, 1 death; Southampton, 1 case; South Shields, 1 case, 1 death; March 26-April 2, London, 67 cases; Manchester, 6 cases; March 26-April 9, Hull, 17 cases, 2 deaths; Nottingham, 1 case; Glasgow, April 8-15, 33 cases, 3 deaths; Liverpool, April 9-16, 2 cases.
India: Bombay, March 21-27, 23 deaths; Karachi, March 20-27, 2 cases, 1 death.

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Italy: Catania, March 31-April 7, 3 deaths; Palermo, March 26-April 9, 2 cases.
Java: Batavia, March 5-12, 20 cases, 1 death.
Mexico: City of Mexico, March 21-April 10, 13 cases, 4 deaths; Torreon, April 10-16, 19 cases, 35 deaths.
Netherlands: Amsterdam, April 2-9, 2 cases.
Russia: St. Petersburg, March 26-April 2, 7 cases, 2 deaths.
Spain: Barcelona, April 1-10, 8 deaths.
Turkey: Constantinople, March 27-April 10, 6 deaths; Smyrna, March 20-27, 1 death.

YELLOW FEVER.

Brazil: Rio de Janeiro, March 13-27, 6 cases, 3 deaths.
Colombia: Barranquilla, March 23-April 3, 1 death.
Ecuador: Guayaquil, March 19-26, 10 deaths.
Mexico: Merida, April 3, 3 cases, 2 deaths.

CHOLERA—INSULAR.

Philippine Islands: Manila, Feb. 27-March 5, 1 case, 1 death; Provinces, Feb. 13-March 5, 32 cases, 20 deaths.

CHOLERA—FOREIGN.

India: Calcutta, March 12-19, 58 deaths; Karachi, March 20-27, 1 case, 1 imported; Madras, March 13-25, 23 deaths.

PLAGUE—INSULAR.

Philippine Islands: Manila, Feb. 27-March 5, 2 cases, 2 deaths.

PLAGUE—FOREIGN.

Africa: Cape Colony, March 12-19, 1 case, 1 death; Johannesburg, March 18-20, 22 cases, 6 deaths; Pretoria, March 20, 2 cases.
Brazil: Rio de Janeiro, March 13-27, 2 deaths.
Egypt: March 12-26, 126 cases, 102 deaths; Alexandria, 1 case, 1 death; Port Said, 1 case.
India: Bombay, March 8-29, 2,705 deaths; Calcutta, March 12-19, 295 deaths; Karachi, March 20-27, 426 cases, 355 deaths; Madras, March 19-25, 1 death.
Formosa: Feb. 1-29, 114 cases, 80 deaths.
Peru: Lima, April 17, 148 deaths.
Straits Settlements: Singapore, Feb. 28, March 5, 2 deaths.

Medical Organization.

Florida.

FLORIDA MEDICAL ASSOCIATION.—This association held its thirty-first annual meeting at Live Oak, April 20, 21 and 22. This was the first meeting under the new plan, and it was very successful. The following was the representation by counties: Alachua, 16 members; Bradford, 11; Brevard, 7; Citrus, 5; Dade, 13; De Soto, 8; Duval, 30; Escambia, 21; Gadsden, 8; Hillsborough, 28; Jefferson, 10; Jackson, 12; Leon, 6; Madison, 5; Manatee, 5; Monroe, 6; St. Johns, 3; Suwanee, 13; Volusia, 15, and Washington, 6. This is a great increase over the previous membership and shows good work of the councilors during the past year. The following officers were elected: Dr. Edward N. Liell, Jacksonville, president; Drs. James M. Jackson, Jr., Miami, James F. McKinstry, Jr., Gainesville, and John S. Helms, Tampa, vice-presidents; Dr. James D. Love, Jacksonville, librarian; Dr. J. D. Fernandez, Jacksonville, secretary and treasurer; Drs. J. Harris Pierpont, Pensacola, councilor First District; Henry E. Palmer, Tallahassee, Second District; C. S. Brown, Live Oak, Third District; Jay H. Durkee, Jacksonville, Fourth District; H. M. Taylor, Crystal River, Fifth District; Joseph N. Fogarty, Key West, Sixth District; Williams L. Hughlett, Cocoa, Seventh District, and J. Harrison Hodges, Gainesville, Eighth District. Jacksonville was selected as the next place of meeting. Many interesting papers were read and discussed and the wisdom of separating the legislative body from the scientific was very thoroughly demonstrated, as quite a number of cases came up which were referred to the House of Delegates, and in that way did not take the time of the association. Dr. Joseph Y. Porter, Key West, was elected delegate to the American Medical Association, and Dr. J. Harrison Hodges, Gainesville, alternate.

Illinois.

WASHINGTON COUNTY MEDICAL SOCIETY.—At the annual session of this society, held in Nashville, the standard constitution and by-laws was adopted and the following officers elected: Dr. James J. Troutt, Nashville, president; Dr. Richard E. Vernor, Nashville, vice-president; Dr. David S. Neer, Beaucoup, secretary, and Dr. Simon P. Schroeder, Nashville, treasurer.

Indiana.

JASPER AND NEWTON COUNTIES MEDICAL SOCIETY.—Dr. George F. Keiper, Lafayette, councilor for the Tenth District, assisted at the organization of this bi-county society, on the standard plan, at Rensselaer, April 25. The society has an initial membership of 18 and the following officers were elected: Dr. Benjamin W. Pratt, Goodland, president; Dr. Peter J. Pothuisje, Remington, vice-president; Dr. Auburt L. Berkley, Rensselaer, secretary-treasurer; Drs. J. Walter Shafer, Morocco; Theodore E. Collier, Brook, and Arthur R. Kresler, Rensselaer, censors, and Dr. S. Curtis Johnson, Rensselaer, delegate to the state medical association.

Maryland.

MONTGOMERY COUNTY MEDICAL ASSOCIATION.—At the annual spring meeting of this society, the organization of which was noted in THE JOURNAL of January 16, held at Rockville, April 12, the standard constitution and by-laws was adopted with slight change. The banquet was attended by about 75. Dr. Robert W. Johnson, Baltimore, was toastmaster, and addresses were made in answer to toasts by the president, the president-elect, Dr. William H. Welch, Baltimore, and Dr. Clotworthy Birnie, Taneytown. Two very remarkable cases were exhibited during the meeting. Dr. Joseph H. Branham, Baltimore, showed a patient on whom he had performed pylorectomy for cancer of the stomach several years ago, and Drs. John W. Chambers and Julius Friedenwald presented a patient on whom the former had operated for chronic pancreatitis. Both were well several years after the operation. The following officers and committees were elected: President, Dr. Edward N. Brush, Baltimore; vice-presidents, Drs. Samuel T. Earle, Jr., Baltimore; DeWitt C. R. Miller and Julius A. Johnson, Easton; secretary, Dr. John Ruhräh, Baltimore; treasurer, Dr. Thomas A. Ashby, Baltimore; trustees, Drs. Henry M. Hurd, L. McLane Tiffany, Wilmer Brinton, and G. Lane Taneyhill, all of Baltimore, Charles M. Ellis, Elkton; Isaac E. Atkinson, Edward N. Brush, and Samuel C. Chew, all of Baltimore; James W. Humrichouse, Hagerstown, and John W. Chambers, Baltimore; councilors, Drs. William Osler, Robert W. Johnson, Thomas S. Latimer, Randolph Winslow, Henry O. Reik, all of Baltimore, Charles M. Ellis, Elkton, Charles W. Wainright, Princess Anne, J. McPherson Scott, Hagerstown, Clotworthy Birnie, Taneytown, Thomas H. Brayshaw, Glenburnie, D. C., R. Miller, the president, secretary and treasurer, and chairman of board of trustees and library committee ex-officio; memorial committee, Drs. Eugene F. Cordell, Joseph T. Smith, Frank D. Sanger, and Hugh H. Young, all of Baltimore, Philip Briscoe, Island Creek, and Edward L. Whitney, Baltimore; committee on scientific work and arrangements, Drs. Jeffreys Buck, Henry O. Reik and John Ruhräh, all of Baltimore; committee on public policy and legislation, Drs. William H. Welch and Thomas S. Latimer of Baltimore; Edward J. Dirickson, Berlin, Edward N. Brush, and John Ruhräh, both of Baltimore; delegates to the American Medical Association, Drs. Clotworthy Birnie, Taneytown, and William Osler, Baltimore; alternates, Drs. Samuel T. Earle, Jr., Baltimore, and Charles M. Ellis, Elkton; delegate to committee of the American Medical Association on National Legislation, Dr. Samuel T. Earle, Jr., Baltimore; committee to confer with the Maryland Pharmaceutical Association, Drs. Charles H. Riley, William F. Lockwood, and J. Frank Crouch, all of Baltimore; delegates to state medical societies, Pennsylvania, Drs. James M. Spear, Cumberland, D. C., R. Miller and W. Christian Sandrock, Baltimore; Delaware, Drs. George S. Dave, Rising Sun, William F. Hines, Chestertown, and Benjamin Whiteley, Catonsville, West Virginia; Drs. James G. Wiltshire, Baltimore, Richard W. Trapnell, Point of Rocks, and Lewis M. Allen, Baltimore; Virginia, Drs. Thomas Opie, Hugh H. Young and Isaac R. Trimble, all of Baltimore; North Carolina, Drs. St. Clair Spruill, Randolph Winslow, and Alexander D. McConachie, all of Baltimore; committee on fund for widows and orphans, Drs. Eugene F. Cordell, William Osler, Robert W. Johnson, and D. Webster Cathell, all of Baltimore, and library committee, Drs. George J. Preston, William Osler, Stewart Paton, Charles O'Donovan and J. Whitridge Williams, all of Baltimore.

Mississippi.

NATCHEZ MEDICAL ASSOCIATION.—Physicians of Natchez met, April 12, and organized a medical association with the following officers: Dr. Lewis H. Lamkin, president; Dr. Benjamin D. Watkins, vice-president, and Dr. R. Dunckley Sessions, secretary.

PONTOTOC COUNTY MEDICAL ASSOCIATION.—Fourteen physicians of the county met at Pontotoc, April 7, and organized this association on the standard plan, with the following officers: Dr. L. A. Ellison, Eeru, president; Dr. L. Leo Newman, Cherry Creek, vice-president; Dr. Thomas A. Williams, Redland, secretary and treasurer, and Dr. James A. Donaldson, Troy, delegate to the state association.

Missouri.

SCOTLAND COUNTY MEDICAL SOCIETY.—The physicians of the county met at Memphis, April 17, and organized a medical society on the standard plan, with the following officers: Dr. William E. Alexander, Memphis, president; Dr. Arthur L. Davis, Arbela, vice-president; Dr. Oscar F. Pile, Memphis, secretary-treasurer; Dr. Edward E. Parrish, Memphis, delegate to the state association, and Drs. Albert E. Platter, Memphis, Frederick M. Johnson, Gorin, and Dr. George K. Maynard, Arbela, censors.

Ohio.

MORROW COUNTY MEDICAL SOCIETY.—Dr. Theodore W. Rankin, Columbus, councilor for the Tenth District, and Dr. Charles S. Hamilton, Columbus, met with the physicians of the county at Mount Gilead, April 20, and reorganized the county society on the standard plan. Dr. G. W. Morehouse, Sparta, was elected president; Dr. William L. Case, Mount Gilead, vice-president; Dr. Roland C. Spear, Mount Gilead, secretary; Dr. John H. Jackson, Edison, treasurer, and Dr. Walter C. Bennett, Mount Gilead, delegate to the state medical association.

Tennessee.

LAWRENCE COUNTY MEDICAL SOCIETY.—With the aid of Dr. Otey J. Porter, Columbia, a county medical society on the standard plan has been organized at Lawrenceburg with the following officers: Dr. Robert H. Harvey, Lawrenceburg, president; Dr. Jasper N. Pickard, Summertown, vice-president, and Dr. C. M. Womack, secretary and treasurer.

Texas.

EIGHTH DISTRICT MEDICAL SOCIETY.—The physicians of this district, which comprises De Witt, Goliad, Victoria, Jackson, Lavaca, Matagorda, Colorado and Wharton counties, met at Wharton, April 12, and organized a district society on the standard plan. The following officers were elected: Dr. Walter Shropshire, Yoakum, president; Drs. Green L. Davidson, Wharton, James E. Pridgen, Thomaston, and Madison M. Pool, El Campo, vice-presidents; Dr. W. B. Cline, Lane City, secretary, and Dr. Oliver K. Radkey, Edna, treasurer.

Society Proceedings.

COMING MEETINGS.

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, N. J., JUNE 7-10.

Utah State Medical Society, Ogden, May 10-11.
Assn. of American Physicians, Washington, D. C., May 10-11.
West Virginia State Medical Association, Fairmont, May 10-11.
Oklahoma Territory Medical Society, Oklahoma City, May 11.
New Mexico Medical Society, Albuquerque, May 11.
Illinois State Medical Society, Bloomington, May 17-19.
State Medical Association of Missouri, St. Louis, May 17-19.
Montana State Medical Association, Butte, May 18.
Kentucky State Medical Association, Lexington, May 18-20.
Iowa State Medical Society, Des Moines, May 18-20.
Ohio State Medical Society, Cleveland, May 18-20.
Indiana State Medical Association, Indianapolis, May 19-20.
New Hampshire Medical Society, Concord, May 19-20.
American Gynecological Society, Boston, Mass., May 24.
Medical Society of the State of North Carolina, Raleigh, May 24.
North Dakota State Medical Society, Fargo, May 25-26.
Connecticut Medical Society, New Haven, May 25-26.
Michigan State Medical Society, Grand Rapids, May 25-27.
Amer. Laryn., Rhin., and Otol. Society, Chicago, May 30-June 2.
American Medico Psychological Asso., St. Louis, May 30-June 3.
South Dakota State Medical Association, Redfield, June 1-2.
Maine Medical Association, Portland, June 1-3.
International Assn. of Railway Surgeons, Chicago, June 1-3.
Minnesota State Medical Society, Minneapolis, June 2-3.
American Therapeutic Society, New York City, June 2-4.
American Dermatological Association, Niagara Falls, June 2-4.
Rhode Island Medical Society, Providence, June 3.
Conf. of State and Prov. Bds. of Health of N. A., Wash., June 3-4.
Indian Territory Medical Association, Holdenville, June 3-5.
American Academy of Medicine, Atlantic City, June 4-6.
Medical Society of New Jersey, Atlantic City, June 4-7.
Nat. Conf. State Med. Exam. and Llc. Bds., Atlantic City, June 6.
American Medical Editors' Association, Atlantic City, June 6.
American Assn. Life Ins. Exam. Surgs, Atlantic City, June 6.
American Gastro-Enterological Association, Atlantic City, June 6.
Nat. Assn. of U. S. Pen. Exam. Surgs., Atlantic City, June 6-7.
Association of American Medical Colleges, Atlantic City, June 7.
Massachusetts Medical Society, Boston, June 7-8.
American Orthopedic Association, Atlantic City, June 7-9.
American Urological Association, Atlantic City, June 10-11.
Medical Society of Delaware, Lewes, June 14.
Wisconsin State Medical Society, Milwaukee, June 22.

GERMAN CONGRESS OF SURGERY.

Held at Berlin, April 6-9, 1904.

(*Continued from page 1175.*)

The principal points in a number of the communications presented have been given in these columns recently, as published by the authors, such as Bakes' method of drawing up the omentum to envelope the kidney as a desirable modification of Edebohls' technic. (See page 1190.) Israel's experience with decapsulation was reported. In 6 cases of nephritis in which decapsulation was done, 1 patient died, 1 grew worse; in 2 other cases there was no improvement, but in the remaining 2 a certain amount of benefit was evident. He doubts whether this intervention has ever cured a case of true nephritis. Zondek thinks that his experiments on rabbits show that the Edebohls operation must be more or less harmful, as it temporarily deprives the organism of the circulation connecting the fibrous capsule with the renal parenchyma. Stern, Riedel and Kümmell also reported cases treated by decapsulation, the results being at best merely subjective improvement.

Renal Tuberculosis.

Kümmell of Hamburg has performed 48 operations on the kidneys on account of tuberculosis out of his total of 260, all but 15 of the 48 being women. In 5 the affection was bilateral. The others were treated by nephrectomy and 32 are still alive, after an interval of up to fifteen years. Some have been lost to sight. Krönlein has observed 51 cases of renal tuberculosis, about 30 per cent. of all the kidney affections received in his clinic at Zurich. All but 13 were women. He thinks this preponderance of the female sex is due to the effects of pregnancy and menstruation, causing conditions which lower the resistance of the kidney tissue. The age ranged from 20 to 40 in the majority. He removed the kidney in 34 cases. Eight of the patients died during the first nine months and 2 after six and ten years from tuberculosis of the lungs or of the other kidney. The 24 survivors are in perfect health to date, the interval being as long as fourteen years in some instances. He and Kümmell both deny the possibility of an ascending tuberculosis of the kidney, regarding it as inevitably of hematogenic origin. He distinguishes several forms of tuberculosis of the kidneys, the soft, abscess variety, the firm, caseous, the diffuse firm and the tuberous, his experience with a single case confirming that of Israel's in regard to the grave prognosis of this latter form. In one instance he had occasion to observe a tuberculous embolism. A tuberculous young man, lifting a weight, experienced a sudden pain in the back and his condition grew steadily worse. Extirpation disclosed a solitary tuberculous focus in the kidney, a hematogenic embolus. He is collecting colored plates of the findings in all the cases of kidney tuberculosis on which he operates, with a view to publishing an atlas of renal tuberculosis. Only 12 of the 34 were free from tuberculous lesions elsewhere. Nine of the 10 subjects who have died since have been examined postmortem, and in 6 there was no evidence of tuberculosis in the remaining kidney.

Substitution of Shaft of Long Bones.

Friedrich of Greifswald reported smooth healing and fine functional results attained in cases in which the entire diaphysis of the femur or tibia had been removed and substituted by a corresponding shaft from some other person after removal of the marrow and sterilization by boiling. His experimental and clinical research has demonstrated that the lengthwise growth of the bone proceeds normally from the epiphysis notwithstanding the interposition of a foreign body, if the epiphysis is intact. A silver plate inserted between the epiphysis and the diaphysis in young animals is pushed upward or downward toward the center of the shaft by the growth from the epiphysis. After six months it is nearly at the center of the shaft, sometimes the plate is found horizontal and sometimes tilted. If the interposed foreign body is porous and gives up salts needed for the production of the new bone, the growth of the new bone is facilitated, consequently a prothe-

sis of human bone is the best of all. Among the patients he has thus treated is a girl of 8 requiring removal of the entire shaft of the femur on account of a myelogenic sarcoma. It was substituted by the tibia from a consumptive boy of 11. Healing was rapid and without any reaction, the dressings changed after six weeks. The child runs around with a splint and cane, entirely free from pain. The operation was performed last October. Another child had 14 cm. of the left femur substituted by a femur from a woman who had succumbed to gastric cancer. The marrow is removed from the bone and it is sterilized by boiling.

Injury of Hypophysis.

Madelung reported the case of a girl of 9 who, in consequence of a bullet wound in the head, presented unilateral amaurosis, remains of a hemiplegia and almost incredible progressive obesity. He is inclined to attribute the latter to some injury of the hypophysis or its vicinity by the bullet.

Artificial Increase of Resisting Power of Peritoneum.

Mikulicz commented on the importance of summoning the leucocytes to the spot in a septic process and stated that he goes still farther and summons them as an advance guard in readiness for a projected operation liable to induce septic soiling of the part. Flügge has demonstrated that subcutaneous injection of nucleinic acid enables rabbits to bear inoculation with doses of colon bacilli inevitably fatal for the controls. Mikulicz has applied the same procedure to man. Twelve hours before surgical intervention on the digestive tract he makes a subcutaneous injection of 50 c.c. of a 2 per cent. solution of nucleinic acid. The injection induces a slight, transient local reaction with ocasionally a rise of temperature of not more than a degree, but never any disquieting general symptoms and no change in the urine. By the end of an hour or so the number of leucocytes drops below normal, then rises and attains in some cases 24,000, the maximum about twelve hours after the injection. The 34 cases in which he has thus artificially augmented the resistance of the peritoneum to infection from the stomach or intestines includes 7 cases of resection of the stomach and 15 of gastroenterostomy or enteroanastomosis. There was no postoperative peritonitis in any instance. He expressed his impression that the postoperative course was more favorable than usual. Kader of Cracow is engaged on similar research to enhance the resistance of the peritoneum. His plan is to induce phagocytosis by immunization from injections of bouillon cultures of streptococci or colon bacilli. This is followed by two waves of hyperleucocytosis. Mikulicz has abandoned his dry toilet and now flushes the abdominal cavity with saline, believing that the local hyperleucocytosis thus induced is of great value. Küster has his patients lie on their abdomen in after-treatment of septic peritonitis, placing them with a bolster under the chest, the head supported, the arms free, and sometimes a bolster under the pelvis.

KANSAS CITY ACADEMY OF MEDICINE.

Regular Meeting, held March 26, 1904.

The President, Dr. C. A. Ritter, in the Chair.

Some of the Cardinal Points in the Diagnosis of Abdominal Tumors.

DR. H. C. CROWELL, Kansas City, said that diagnoses which have, until the intervention of surgery, remained doubtful, are now made possible and positive without danger of increased mortality, by the exploratory operation. I wish to consider three kinds of tumors only, viz., cystomas, fibroids and pregnancy. Error sometimes arises from failing to exhaust the aids to correct diagnosis. In the case of a large abdomen let us bear in mind that it may not be what it appears to be. It may be fat, flatus or muscular action. It is important to know that the bladder is empty and percussion should then establish the presence or absence of free fluid in the peritoneal cavity. If a wave can be elicited which crosses the entire abdominal cavity we are probably dealing with ascites, although a large cyst might give the same wave. In ascites the abdomen will be flatter than if it be a cystoma. Search for a cause of ascites may be of use. Thus if disease of the heart, liver or kidneys be found, the presence of ascites is to be expected. Ascites associated with tubercular peritonitis is a very difficult condition for differential diagnosis. An exploratory operation may be necessary. I abhor the aspirator as a means of diagnosis.

Cystoma is to be differentiated from fibroid, pregnancy and dilatation of the stomach. Cystoma will be found to originate in the pelvis and not to be connected with the uterus. On light percussion it yields fluctuation which is limited to the tumor. It may be surrounded by an area of tympanitic resonance. In the recumbent position the abdomen is not so flat as in ascites.

Fibroid originates in the pelvis and is connected with the uterus so that moving the tumor moves the cervix and vice versa. If the fibroid be edematous deep percussion may give a sense of limited fluctuation. The uterine canal is elongated. Interstitial fibroma may be regular in outline and no harder than the pregnant uterus, in which case the signs of pregnancy must be depended on in order to differentiate.

The one sure sign of pregnancy is the auscultation of the fetal heart. In its absence we may diagnose pregnancy "if there be a swelling of the belly which alternately hardens and softens," which yields the uterine souffle rising in loudness while becoming hard and while becoming soft. With this there must be blue vaginal mucous membrane and softened cervix. If fibroid and pregnancy coexist the uterus will be irregular in outline and the bosses may be hard.

To diagnose a dilated stomach, wash out, inflate with air and percuss. The stomach tube and Davidson's syringe are to be used. Further, if the tumor be hepatic, splenic or renal, palpation will show that it does not originate in the pelvis. If it be hepatic it will rise and fall with respiration. If it be renal the colon will lie over it as a soft band. If it be splenic the sharp edge of the spleen can be grasped and the notch defined. The renal tumor may be further differentiated by the knowledge that hydronephrosis is phantom-like, appearing and disappearing, while movable kidney is subject to crises of severe pain (Dietel's sign), probably caused by twisting of the renal vessels.

DISCUSSION.

DR. BINNIE—I remember that Gaertner of Glasgow used to work on a diagnosis for days and then take great pleasure in making an autopsy in order to supplement his diagnosis. Hughlings Jackson of London added greatly to our stock of diagnostic knowledge by minutely studying his cases and then revising his diagnosis by postmortem study. I remember a case in which a diagnosis of obstruction of the bowels had been made. On operation a chronic appendicitis was discovered. The appendix was removed. Later a recurrence of the old trouble proved that the real cause had not been found. It has been suggested by Hemmeter of Johns Hopkins and also by Maylord that in certain cases of chronic dyspepsia or of nervous dyspepsia, after all treatment has been resisted the abdomen should be opened surgically and explored. Often a pathologic condition will be discovered, as, for example, carcinoma, which can be cured in the early stages. I remember an instance where Dr. Matas of New Orleans operated for carcinoma of the rectum and found uterine fibroid. I do not think I have ever palpated the appendix although I have sometimes thought so. Errors in the differential diagnosis between disease of the gall bladder and of the appendix can not always be avoided, as it is very difficult.

FIRST INTERNATIONAL CONGRESS OF SCHOOL HYGIENE.

Held at Nuremberg April 4 to 9.

The President, Professor Griesbach, in the Chair.

Great interest has been taken in this gathering to discuss subjects bearing on the physical and moral well-being of school

children and teachers, and the hygiene of the school in general. The inscribed membership was 1,247, with invited guests bringing the total to over 1500. Twenty countries were officially represented. Eleven members from North America were inscribed, 60 from Russia, 48 from Great Britain, 51 from Holland, one each from Cuba, Turkey and Uruguay, 3 from Chili, 9 each from Denmark, France and Belgium, 5 from Japan, 4 from Italy, 15 from Spain, 341 from Austria and Hungary, and 621 from Germany. The English delegation comprised representatives of medical societies, school and public health boards, child study and teachers' associations, etc. It was presided over by Sir Lauder Brunton and he was formally elected to the presidency of the next congress, which will be held at London in 1907. There were three general sessions on consecutive mornings, and seven sections, one for hygiene of school buildings, day and boarding schools, with methods of hygienic examination and the physiology and psychology of educational methods and work; one for instruction of teachers and scholars in hygiene; one for physical training; one for disease and medical inspection; one for special schools for deaf mutes, the blind, etc., and one for the hygiene of the school children outside of school, with special reference to school and vacation camps and the relations of the home and the school, and the hygiene of the corps of instructors. The scientific program was opened by an address by Prof. Herman Cohn of Breslau to which reference was made editorially on page 1146 in our last issue. Professor van Johannessen described the conditions in Norway, saying that each school has its medical inspector, and that facilities for warm baths were provided in most of the Christiania public schools. The poorer children were given their lunch at many of the schools, the expense to the state amounting to about $43,200.

The Venereal Peril.

Professor Schusny of Budapest stated that in the Hungarian schools the teachers of physiology alluded to sexual questions in addressing the older boys advising them on sexual hygiene and in regard to the dangers of venereal disease. He advocated that parents should inform their children as they approached puberty, and said that for the last ten years he had delivered addresses along this line to the older boys just before they left school. Shower baths in schools were recommended.

Dr. Benda of Berlin advocated the abolition of the final examinations as too much of a strain. He would have the afternoons left free from study for exercises and games, and would restrict home study as far as possible. He believes in introducing the elective system into the preparatory schools, and suggests that provision for backward pupils should be made in the high schools as well as in the lower grades.

Classification by Mental Capacity.

Dr. P. Sickinger of Mannheim described the system in vogue there by which all school children are classed in three groups, the bright scholars, the moderately dull and the morbidly dull. This classification in the public schools has proved a great improvement from a pedagogic point of view, and its enforcement has not been difficult, while it is satisfactory to all the parties interested.

Ventilation.

The discussion of this subject brought out chiefly the failures and drawbacks of the systems in vogue. Dr. J. Kerr from London advocated for large schools direct mechanical movement of the air by large fans running at low speeds. All air ducts should be as large as could be afforded, and the outlets of low resistance to avoid "short-circuiting" when doors are opened. The minimum supply should be 2,000 cubic feet per capita per hour. The air should be well moistened, and for heating he prefers low pressure steam or water systems. He described his ideal as a large supply of moderately heated air moved by combined propulsion and extraction by fans with accessory heating of rooms, and doors and windows to be opened freely.

Stuttering and Stammering.

Gutzmann of Berlin reported the statistics collected in Berlin by the school medical inspectors. It was found in examining 3,000 school children that the proportion of stutterers under 7 years old was only 6 per cent., while it increased to 10 per cent. at 7, and 15 per cent. at the age of 11 to 12. He thinks that the strain of school life is responsible for this increase in the nervously predisposed. On the other hand, it was found that stammering decreased as education progressed, the proportion being 29 per cent. under the age of 7 and only 6 per cent. at 13 to 14.

School Games.

Dr. C. Dukes of Rugby proclaimed that time should be arranged for school games and that games should be made compulsory on all boys.

Duties of the School Medical Inspectors.

The German system allots four schools to one inspector. Twice a year he examines all the scholars entering the school, and makes a quarterly inspection of the sanitary conditions of the buildings, health of the children, and presence of contagious diseases. If requested by the school board these examinations are made oftener as occasion demands. The principal of the school sends to the medical inspector any child whose state of health during the intervals arouses suspicion. Quarterly meetings of the school inspectors for discussions are considered necessary. Liebermann of Budapest described the task of the school medical inspector as less that of a physician than as the expert adviser in matters of hygiene. The school is not a sanatorium, but an institution for the acquirement of knowledge, and this must not be obtained at the expense of health. As the state compels children to attend school it must guard them against injury therefrom, as it compels manufacturers to introduce safety devices to guard their employes from injury. The school medical inspector requires a special course of training in scientific hygiene and in pedagogics. The inspector should examine the children as they enter school, but the systematic weighing and measuring of the children—while valuable for statistics—is not the province of the school.

Infectious Diseases.

Dr. Hueppe of Prague, in his address, arraigned the medical profession for the unsystematic methods in which needed reforms are asked for from the administrative authorities. The things asked for are usually vaguely put and the grounds for the demand are not set forth in a convincing manner. Physicians must learn to help themselves; they must not go too far, and what they want must be stated clearly. He classes infectious diseases in three groups. The first comprises measles and whooping-cough, the typical school infections, in which susceptibility and predisposition do not count in comparison to the opportunity for infection. Mumps and chickenpox comprise the second group and are easily checked by isolation. The third group includes scarlet fever and diphtheria, which, although dangerous diseases, yet from the point of view of the school are of less importance than those of the two other groups. He thinks that disinfection might be dispensed with if the school rooms were carefully cleaned every day. The smaller the number of children in a room, the less danger from school epidemics. Tuberculosis in the teachers is a grave danger. Vacation camps and other opportunities for a stay in the country should be promoted in every possible way for weakly children. Le Gendre of Paris, in his address, remarked that the danger of infection is no greater from a tuberculous teacher than from similarly intimate contact with any tuberculous subject. The vitiated air, overexertion of the organs of speech and respiration, the fatigue from the long confinement and frequently insufficient nourishment combine to render teachers exceptionally susceptible to tuberculous infection. The danger of this infection is peculiarly enhanced in school rooms by the dust constantly stirred up in the air and brought in from the street, and the large number of persons in the room. This danger is enhanced still further by the common use of many articles, pencils, erasers, pens, etc., and moistening the finger with saliva to turn leaves and for other purposes. Prophylaxis should include reduction of the number of scholars in a

room, better ventilation, prohibition of dry sweeping and rejection of all candidates for positions who are already tuberculous. Children predisposed to tuberculosis should be sent to schools organized for the purpose in the country or at the seashore, and tuberculous teachers should be given the benefit of sanatorium treatment.

Beside the 8 principal addresses delivered at the general meetings there were 153 communications presented in the seven sections and a fine exhibition of things pertaining to school architecture and equipment. The members of the congress were further interested in visits to a model school in the city, a two-story building in the shape of an E. The first floor is given up to the boys and the second to the girls. The middle pavilion is devoted to the gymnasium for both boys and girls, with assembly hall above. The shower-bath facilities are ample, the custom being to give a bath to seven or eight children at a time, once a week. Each child is supplied with a cap, bathing drawers and towel.

CHICAGO MEDICAL SOCIETY.

Clinical Meeting, held April 6, 1904.

Exhibition of Cases of Aneurism of the Aorta.

DR. FRANK BILLINGS showed a man, 45 years of age, whose family history as regards tuberculosis, malignant disease and heart disease, was negative. The patient had an attack of typhopneumonia, which confined him to bed for a period of three months, when he was nine years of age, from which he recovered. At eighteen years of age he had specific urethritis, which lasted for three weeks. He denied any other venereal infection. Six years ago patient first felt a sharp pain in the region of the right shoulder, which came on suddenly. He described the pain as severe, beginning in the anterior portion of the chest, about an inch to the right of the right nipple, passing directly backward through the shoulder, and from the shoulderblade extending downward along the side of the chest, and sometimes across to the opposite shoulder. About a month ago the patient became incapacitated for work and noticed that his voice was failing. At about the same time dyspnea came on, which was aggravated by exertion. There was paralysis of the left recurrent laryngeal nerve. With these prominent symptoms and other minor signs, a diagnosis was made of aneurism of the aorta.

DR. ROBERT H. BABCOCK showed a man, 53 years of age, laborer by occupation, who had been an inmate of the Cook County Hospital for the past seventeen months. The family history was negative. Personal history revealed gonorrhea at the age of nineteen. Patient denied syphilis, and did not give a history of any other important disease. His present trouble began a little over two years ago, with weakness and inability to work, associated with difficulty in breathing and pain. Dyspnea and pain were present only during exertion. Pain was felt in the lateral aspect of both sides of the chest. Present symptoms were chiefly those of dyspnea and change in voice, which was husky. His cough had taken on a peculiar character. He presented all the symptoms of a case of aneurism of the arch of the aorta, as determined by inspection, palpation and auscultation. The treatment had been the ordinary routine treatment of symptoms—rest in bed, light diet, iodid of potassium, etc.

DR. C. A. ELLIOTT presented a man, 54 years of age, in whose case a diagnosis of aneurism was first made two years ago. Patient had the symptoms of this disease, associated with others. A pulsating tumor could be seen about ten centimeters in diameter, which extended from the second rib to the fourth. The apex beat could be seen in the sixth interspace, about an inch to the left of the mammary line. A generalized arteriosclerosis was present with pulsations of all the superficial arteries. A capillary pulse could be demonstrated. The pulse showed the characteristic water-hammer pulsation. Tracheal tug was present, but not marked. On auscultation there was a harsh, roaring, systolic bruit at the apex, and a systolic murmur to be heard. Over the aortic interspace there was a double to and fro murmur, both systolic and diastolic. Over the tumor a double sound could be heard, both a systolic and diastolic bruit. Over the posterior aspect of the chest, at about the level of the eighth rib on the left side, one could hear distinct murmurs, both diastolic and systolic. On auscultation over the lower parts of the chest many râles were to be heard, and over the left side of the heart occasionally a squeaking rub was heard. The patient having been an athlete, Dr. Elliott thought it was reasonable to suppose that the strain to which he had subjected himself was an etiologic factor in his case. The size of the tumor was smaller than it had been.

DR. CHARLES L. MIX exhibited a man, 49 years of age, with aneurism of the aorta. Three months before he presented himself to the post-graduate clinic, the patient was suddenly seized with an attack of severe pain in the left side, which persisted for a while, disappeared, and then recurred. He had had three paroxysms altogether. In addition there was dyspnea. Patient had had specific disease. The aneurism was near the heart. There was dilatation of the venules which one sees in cases of adhesive pleurisy, in some cases of mediastinal tumor, pericarditis, and sometimes in emphysema. In this instance they were scattered well around the chest. The other findings, as elicited by inspection, palpation and auscultation, were pointed out.

DR. GEORGE GALLOWAY reported a case of aneurism of the aorta.

DR. R. B. PREBLE reported a case of aneurism because it presented so few symptoms. The patient appeared at his clinic complaining of dyspnea on exertion and on reclining, and was suffering from edema of the eyelids, which was manifest in the morning, and edema of the feet, which was manifest at night. During the night the edema of the lower extremities disappeared, while the edema of the face appeared, and vice versa, during the day. Inspection disclosed extreme tortuosity of the brachial vessels, with a high degree of arteriosclerosis, although the patient, a colored man, was only forty-three years of age. The patient denied a syphilitic history. The heart was considerably enlarged; the apex beat was situated an inch and a half to the left of the nipple line, and in about the seventh interspace. It was strong, but quite irregular in its action, and not particularly accelerated. Percussion disclosed an area of distinct dullness behind the sternum. Other features of the case were pointed out at length. Dr. Preble said the case was in no way remarkable from an aneurismal point of view, but it drew attention to the fact that in many cases aneurism was merely an incident. In his case it was an incident of a serious generalized disease, in that there were changes in the heart itself, and in the kidney, which were far more important and serious to the patient than the changes in the aorta.

The purpose in having these patients presented to the society was to draw renewed attention to the fact that aneurisms of the aorta were not uncommon; that they were extremely common, no two cases being alike, and anyone who thought, in order to make a diagnosis of aneurism, he must have auscultatory phenomena, coming on early, was mistaken, because many of the most serious cases of aneurism of the aorta had very little phenomena.

DR. FRANK BILLINGS said that in the last few years he had had several cases in which he had made a diagnosis of dilated aorta, and of all of those that had come to autopsy, in more than one-half that diagnosis had been verified. Of the cases he had observed, all but one had occurred in elderly people, much older than any of the patients that had been shown, in people in whom one would expect to find atheroma, sclerosis of the vessels, etc. He mentioned the main points that were noted in taking the history of these cases.

DR. ARTHUR DEAN BEVAN said he had noted three types of tumors within the chest, as shown by the *x*-ray, and there were one or two points of great value in making the differential diagnosis. In aneurism the outline was almost always a regular curve; while malignant growths or mediastinal tumors invariably had an infiltrating outline, if primary, as shown by the *x*-ray. Other pathologic processes presented an irregular, curved outline. He mentioned a case in which he assisted at

an operation in which a positive diagnosis of mediastinal tumor was made by six good clinicians, the possibility of aneurism of the aorta having been eliminated. The mediastinal space was opened with the intention of removing a tumor; the patient died on the table. Postmortem examination revealed an aneurism of the aorta about the size of a fist.

Pneumococcus Endocarditis.

DR. FRANK BILLINGS reported two cases of pneumococcus endocarditis, and exhibited specimens. This was the fifth case of acute endocarditis of pneumococcic origin he had seen in the last three years. He believed that Dr. Preble had collected three or four. A statement was made to him by a Philadelphia physician not long ago to the effect that he believed cases of acute endocarditis were more frequently due to the pneumococcus than to any other one germ; that the gonococcus came next, and then pus germs, etc. He said he would not care to sustain such a statement that the pneumococcus was the most frequent cause of endocarditis, or that the gonococcus was the second cause.

Therapeutics.

[Our readers are invited to send favorite prescriptions or outlines of treatment, such as have been tried and found useful, for publication in these columns. The writer's name must be attached, but it will be published or omitted as he may prefer. It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Chronic Rheumatism.

The medical treatment of chronic rheumatism according to Huchard, in *Med. Press*, consists chiefly in the administration of the iodid of potassium and arsenic. If the patient complains of weakness the latter preparation may be given in the form of Fowler's solution five drops (.30) twice daily, or administered as follows:

B. Sodii arsenatis	gr. i	06
Aquæ	ʒx 300	

M. Sig.: One tablespoonful before lunch and dinner.

If the patient is vigorous potassium iodid is preferable, giving six grains (.35) daily. If the rheumatism be of arthritic character the iodid will be of little benefit. It should be replaced by the tincture of iodin, five drops (.30), three times a day, in a glass of water, gradually increased by one drop daily to ten or fifteen drops (.65-1.00), each time and continued for one month, when it should be suspended for ten days and recommenced. If an excess of uric acid is eliminated piperazin may be given:

B. Piperazin	ʒi	4
Aquæ	ʒx	300

M. Sig.: One tablespoonful twice a day for five days and suspended for five days.

Colchicum, in the opinion of the author, is of service only in rheumatism of a gouty nature. In acute attacks of chronic rheumatism the salicylate of sodium is frequently of good service, being superior to antipyrin, aspirin or salophen. Externally he recommends the application of the tincture of iodin to the affected area or ignipuncture. The following combination; also applied externally, is of value:

B. Acidi salicylici		
Essentiæ terebinthinæ		
Lanolini, āā	ʒx	40

M. Ft. unguentum. Sig.: Apply locally to the affected joints, with thorough friction, until absorption is complete.

When a great deal of pain is present Dieulafoy recommends a poultice of bread crumbs moistened with camphor and coated with the following mixture:

B. Spts. camphoræ	ʒii	8
Ext. opii	ʒi	4
Alcoholis q. s.	ʒii	60

M. Sig.: Spread on the poultice and apply locally. Cover with gutta percha and keep in place with a flannel bandage.

Massage, electricity, warm baths, hot-air baths and turpentine vapor baths are also recommended.

Massage is especially indicated in the treatment of arthritis deformans by suppressing pain and avoiding ankylosis.

The ointment applied with massage is composed as follows:

B. Tinct. nucis vom.		
Spts. lavendulæ, āā	ʒi	4
Lanolini		
Olei petrolati, āā	ʒvi	24

M. Sig.: Apply locally with massage.

Warm baths should be given every two days for ten or twenty minutes, raising the temperature of the water as high as can be borne while the patient is in the bath. A hot sand bath is recommended by Bergeret when effusion is present in the joint, enveloping the joint in cotton wool and applying hot sand. The author also recommends various hydropathic establishments, including the sulphur mud baths.

The chronic form of rheumatism is much more amenable to treatment than the arthritic form, as the real cause of the latter is not yet fully understood, its nature being very complex, showing nervous, nutritional and inflammatory disturbances.

Yeo, in his "Ther. of Mineral Springs and Climate," states that patients suffering from gout, rheumatism and rheumatoid arthritis require similar climatic treatment. They are all influenced by cold, windy and damp localities, and all are benefited by residence in warm and dry situations. Sea coast resorts are of no benefit in these cases. Gouty subjects are prone to attacks of dyspepsia and biliousness in what is known as "strong" sea air. Dry inland resorts with southern aspect and protected from cold winds, are most suitable for rheumatic and gouty individuals. High altitudes are also unsuitable for such patients.

The most suitable winter resorts are either the warm, dry Riviera stations of France or the desert resorts in Egypt or Algiers. In summer and autumn moderate elevations should be sought as at Gastein, Ragatz and Wildbad. Prohibition of sea climates does not apply to young subjects of rheumatoid arthritis—for some of these cases have scrofulous affinities and may do well at the seaside or even on the sea.

Acute Tonsillitis.

The systematic treatment of acute tonsillitis is about the same in all the forms of infectious inflammation of the tonsils, so states George B. Wood in *Ther. Review*. He recommends that the patient be put to bed when fever is present and given soft foods. An active cathartic should be the initial treatment, giving calomel every half-hour in ¼ grain doses (.015) until two or three grains (.12-.20) are given, following this in about twelve hours by a mild saline purge. No drugs can be compared in effectiveness to the preparations of salicylic acid in the treatment of acute tonsillitis. Salol is not so desirable because of the dangers of carbolic acid poison. The author also states that sodium salicylate is not so desirable because of its depressant effect on the heart. He, therefore, prefers the ammonium and strontium salicylate combined, and to counteract any depressant action he combines them with strychnia as follows:

B. Strych. sulph.	gr. ss	03
Ammon. salicylatis		
Strontii salicylatis, āā	ʒiss	8
Aquæ destil. q. s. ad	ʒiii	90

M. Sig.: Shake well and take one dessertspoonful in milk after meals.

In patients with irritable stomachs the salicylates are much more easily borne if given dissolved in half a glass of milk after meals. The nauseating effect of these preparations is due to their action on the gastric mucosa, so that when given with milk they penetrate the coagula, and as the coagula is slowly and gradually digested, only a small part of the salicylates is brought in contact with the gastric mucous membrane at one time. If after two days of active treatment with the salicylates an attack of acute tonsillitis does not show improvement, it is very doubtful if only a simple infection of the tonsil is present. After stopping the salicylates much benefit is

derived from the use of some tonic, preferably strychnia, given to an adult in large doses—gr. 1/30 to 1/20 (.002-.003) three times a day. In children the use of the salicylates is very questionable and the dose should be carefully regulated to suit the age of the patient.

In children under 7 years of age the author seldom gives any drug except calomel. The local treatment consists in sterilizing, as far as possible, the crypts of the tonsils, the pharynx and the nasal fossæ. The latter should be cleansed with a warm saturated solution of boric acid, followed by an insufflation of a mild non-irritating antiseptic powder such as aristol. In those forms of tonsillitis characterized by congestion and swelling the essential feature in the treatment is to free the crypts from the pathologic germs. This may be accomplished by the introduction of strong hydrogen peroxid into the individual crypts by means of a fine applicator wrapped with a small pledget of cotton and saturated with the solution. After the acute stage is passed the crypts can be irrigated by a small stream of boric acid solution from a suitable syringe. In sensitive throats the peroxid alone can be applied, and if too irritating may be diluted to suit the case.

No remedy surpasses in efficiency the peroxid of hydrogen unless it is guaiacol used in 50 per cent. strength, combined with olive oil. This burns for a minute or so, followed by some anesthesic effects. The foregoing treatment should be carried out by the physician once a day. For home treatment a mild antiseptic throat wash should be used by the patient similar to the following:

℞.	Acidi borici	ʒiss	6
	Pot. chloratis	ʒiii	12
	Glycerini	ʒi	30
	Aquæ destil. q. s. ad	ʒvi	180

M. Sig.: Dilute with warm water and use as throat wash.

In ordinary gargling the fluid does not extend beyond the anterior pillar of the fauces. The fluid, however, can be made to reach the posterior wall by directing the patient to take a mouthful of the warm antiseptic solution and lie down on his back so that the head will be even with the shoulders, then holding the breath, allow the fluid to run back as far as possible and not swallow it. After letting it rest there for a moment the head should be thrown quickly forward and the fluid brought back into the mouth. Children can not carry out the above procedure successfully.

After the acute stages have passed the throat will be brought to its normal state more rapidly by the use of some astringent application or gargle. The author recommends for this purpose the glycerol of tannin, applied with a swab, twice a day. And as an astringent wash the following is recommended:

℞.	Ext. rhois glabræ flu.	ʒiii	90
	Pulv. parsii chloratis	ʒiss	6
	Glycerini	ʒss	15

M. Sig.: Shake well and mix one to three teaspoonfuls with a wineglass of water, and gargle three or four times daily until the soreness has disappeared.

Medicolegal.

Cost of Medical Services Evidence of Their Value.—The St. Louis Court of Appeals says that, in Abbitt vs. St. Louis Transit Co., which was brought by a husband to recover damages for personal injuries to his wife, the point was raised that there was no testimony that the bill for medical services was reasonable. The woman was attended by a regular physician, a graduate of a reputable medical school. He testified that his bill for attending her was $250, and that the husband gave him a well-indorsed note, but had not, at the time of the trial, paid him in cash. There was no testimony that the charge was reasonable, but the presentation of the bill and its payment or settlement by note or otherwise was some evidence that it was reasonable. In the absence of other evidence, cost is competent as tending to show value. The court can see no reason why that principle of law is not applicable to the cost of medical services as well as of property. It adds that it has examined the Missouri cases in which there were reversals because of a lack of proof as to the value of medical attention, and in all of them there was no proof at all as to what was charged or paid. The opinions, while they do not pass on the question, appear to assume that the presentation and payment of a physician's bill would be evidence of its reasonableness.

Venereal Disease and Marriage—Waiving Privilege.—The Court of Appeals of New York says, in the case of Svenson vs. Svenson, that it shares in the unwillingness of the Appellate Division of the Supreme Court (page 603 of THE JOURNAL of February 28, 1903) to assert the doctrine that an innocent and unsuspecting girl who marries a man afflicted with a chronic, contagious, and hereditary venereal disease, and who, therefore, refuses to consummate the marriage, may not procure a decree annulling the same because of the fraud involved in the existence of such a condition and its concealment from her. But, the court continues, the relief sought was denied on the ground that the defendant, two years after the marriage, had practically recovered. What a practical recovery from such a disease may import, where it has existed for more than two years, with the danger of its return and ultimate transmission, it is difficult, if not impossible, to determine. But it was certain, at least, that at the time of the marriage the defendant was incapable of meeting the obligations and performing the functions of the marital relation, and was morally and physically unfit to become or continue to be the husband of a pure and innocent girl. When he concealed that condition from her, and still induced her to marry him in ignorance thereof, he was guilty of a base and unmitigated fraud as to a matter essential to the relation into which they contracted to enter. Obviously, the principle that refuses relief in cases of ordinary ill health, after the marriage contract has been actually consummated, has no application to a case like this, where there has been no consummation, and the disease is one involving disgrace in its contraction and presence, contagion in marital association, and includes danger of transmission and heredity that even science can not fathom or certainly define. The suppression of a disease including such dire and disastrous possibilities, directly affecting the marital relation, constitutes a fraud which clearly entitles the innocent party to a decree annulling the marriage contract, particularly when it has not been consummated. Again, the court says that it was evident that, the marriage not having been consummated, the usual considerations of public policy which apply to a case where the relation has by consummation of the marriage ripened into a public status did not exist here. There was between these parties little more than a contract to marry, and the court is aware of no principle of public policy which would be subverted by annulling this marriage, or which required it to compel the plaintiff to consummate the marriage and give herself up as a sacrifice to the possibilities involved in such a course. Nor does the court seem to think that relief could be refused the plaintiff on the ground of some supposed collusion between the parties, belief in which was presumably reached principally from the fact that the defendant appeared by an attorney, who, on the trial, waived the provisions of section 834 of the Code of Civil Procedure in the manner required by Section 836 of that act (relative to privileged communications), thus enabling the plaintiff to prove by a physician the physical condition of the defendant when the marriage contract was entered into, which she could not have done in that manner except by such waiver. If there remained in the defendant a single spark of manhood, the court asks, how could he have done otherwise? Moreover, it says, the record tended to disclose that this course was pursued by the defendant to avoid being called as a witness and compelled to testify to his own ignominy and disgrace.

Liability of Healers for Malpractice—Evidence.—The Supreme Court of Missouri, Division No. 2, has affirmed, in the case of Longan vs. Weltmer and others, a judgment for $7,500 damages for injuries alleged to have been sustained by the plaintiff by reason of the negligent, careless, and unskillful treatment by one of the employes of the defendants, "magnetic healers," under whose treatment she was at the time for some

derangement of the stomach. The court says that, while treating her at the defendants' institution, this employe placed her on her back on a padded table, and put one hand on her stomach and the other hand under her knees, and bent her so that her knees almost touched her breast. He then placed her on her stomach on the padded table, and put his left hand on the small of her back over her spine, and his right hand under her knees, and bent her legs up until she screamed with pain. These manipulations resulted in the ligaments connecting the backbone and hip bone being ruptured and torn, and the back and spine and pelvic organs being permanently injured. The defendants contended that as the plaintiff's action was based solely on the negligent treatment of her, in order to constitute unskillfulness it devolved on her to show that the kind and manner of treatment adopted was not proper or usual in magnetic healing, and that, as she failed to do so, she was not entitled to recover. The court says that if this action was being prosecuted on the theory that the defendants were physicians, or that magnetic healing was one of the recognized professions, there would be more force in this position, but it was not, but on the ground that they held themselves out as magnetic healers, claiming and pretending to heal and cure all mental and physical ailments and diseases of the human mind and body through some power which they possessed peculiar to themselves. Nor was it necessary, in order to their liability for injuries sustained by the plaintiff, that they should have been or claimed to be practicing physicians, but if they undertook to cure the plaintiff of her maladies, and by the negligent or unskillful treatment of her, either by themselves or their employes, and by reason of such treatment, she sustained the injuries sued for, she was entitled to recover, just the same as she would be entitled to recover damages for the negligent or unskillful performance of any other kind of contract. It is a legal truism that any person who is legally responsible for his conduct is liable for all damages suffered by another which are the proximate result of negligence, carelessness, or want of ordinary care, and the reasons which prevail in such cases are much more cogent in the case of a person who deals with health and life, instead of property. Further, the court holds that, while it was true that the physicians who testified on the part of the plaintiff did not claim or pretend to know anything about the practice of magnetic healing, they were nevertheless competent, from education and experience, to testify whether the treatment which the plaintiff underwent was proper in any case, and especially in her condition. Simply because a person claims or pretends to possess certain powers of healing peculiar to himself is no reason why other persons, who do not claim such powers, but who know from education and practice, are not competent to judge whether the treatment administered was negligently or carelessly done. Otherwise any nonprofessional person might undertake to treat a certain disorder, and—if defendants' position be correct in law, it matters not how carelessly or negligently performed—because, forsooth, no one could be found of the same pretensions to testify with respect to such treatment, the injured person would be without remedy. The contention, the court holds, is untenable.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

April 23.

1 *Rational Treatment of Malignant Tumors. Homer Wakefield.
2 *Personal Observations on the Advantages of Certain Arctic Localities in the Treatment of Tuberculosis. Frederick Schon.
3 *Investigation of Certain of the Reflexes and Sensory Phenomena and the Condition of the Eye-grounds. Based on a Study of 103 Healthy Young Men. Knee-jerks. Achilles-jerks. Conjunctival and Pharyngeal Reflexes. Pupillary Reflexes. Stereognostic Appreciation. Muscular and Spacing Senses. Theodore Diller.
4 *The Surgical Treatment of Hallux Valgus and Bunions. James Newell.
5 Malignant Growth in the Abdominal Wall Following Abdominal Ovariotomy. Geo. W. Kaan.
6 *Summary of an Experimental Research Into Digitalis in Shock and Collapse, with Illustrative Protocols. G. W. Crile.
7 *Importance of considering the Element of Vasomotor Instability in Estimating the Significance of Irregularity of Cardiac Rhythm. Louis Faugeres Bishop.

1. **Malignant Tumors.**—Wakefield's paper is supplementary to his former article in *Amer. Med.*, Nov. 22 and 29, 1902, and abstracted in THE JOURNAL, December 13.

2. **Tuberculosis.**—Schon recommends northern Greenland as a summer resort for tuberculous patients. Sunshine is nearly continuous night and day; the atmosphere is germless, the scenery is striking, not cheerless, and the temperature, though low is not unendurable. Good wholesome food is easily carried and the appetite is improved by the environment. One is never beyond the reach of a sheltering harbor during the whole trip to the region, which can be made in ten days. Three months, he thinks, under such conditions may be time enough for the cure in patients not greatly run down, and is ample to give a person a fair start. He sums up the advantages as constant sunlight, germless, dustless air, an unvarying and bracing temperature inviting outdoor life and exercise, creating an appetite and the ability to digest and assimilate. Good recreation, novelties, etc., are also advantages.

3. **Reflexes in Relation to Eye Ground.**—Diller's conclusions are summed up in the following:

Of young men in health it may be said:
1. The knee-jerks vary greatly in their range and rapidity, being often difficult to elicit.
2. The achilles-jerk is constantly present, varies much less than does the knee-jerk, and is seldom difficult to elicit.
3. The conjunctival reflex is extremely variable, being absent or faintly present in half of the cases.
4. The same may be said of the pharyngeal reflex.
5. The pupils are equal.
6. The pupils vary greatly in size, ranging from 2 mm. to 4.5 mm. and averaging 2.76 mm. in the light. The pupillary light reflex varies greatly, the range of the excursion being from scant 0.5 mm. to 3 mm. and the average 1.89 mm.
7. In the accommodation reflex the range of the pupillary excursion also varies greatly and is occasionally absent, the average range being 0.967 mm.
8. Convergence is more or less defective in fully half the cases.
9. The eye-grounds exhibit more or less deep or extensive cupping of the optic nerve with gray stippling in about an eighth of the cases; and in a few of these the appearance is suggestive of beginning gray atrophy.
10. The stereognostic appreciation is uniformly keen.
11. The same may be said of the muscular and spacing senses.

The number of persons on which these were based was 103 and the results of the experiments are briefly tabulated.

4.—This article has appeared elsewhere. See THE JOURNAL, xli, title 103, p. 1561.

6. **Digitalis in Shock.**—In Crile's experiments the fluid extract, the tincture and digitalin were used. In normal animals therapeutic doses intravenously administered caused a rise of blood pressure, which was sustained at the maximum for a considerable time. When given in larger or smaller doses repeated beyond therapeutic limits the blood pressure rose higher and more abruptly. If the over-stimulation fell short of a fatal breakdown, the intervals of alternation between the slow, powerful contractions and the rapid, weaker ones increased, only intermissions appearing later; finally the normal rhythm was re-established. Where the overstimulation reached a fatal breakdown, the alternations became more marked, and the heart suddenly stopped. If due to a large single dose or repeated smaller ones, the overstimulated heart became extremely irregular and the animal died suddenly from cardiac failure. Sometimes convulsions occurred. The respiration, when at all affected, was either impaired or arrested. It seemed on the average that in cases of shock the animal treated by digitalis did not live so long as the controls; certainly did not live longer. There was considerable idiosyncrasy in reaction of the different animals.

7. **Vasomotor Instability.**—Bishop calls attention to the element of vasomotor instability in estimating the significance of cardiac rhythm. He has often noticed that the regular pulse is attended with irregular auscultatory signs or vice versa. He thinks that cardiac irregularities may be only an attempt to compensate the misbehavior on the part of the vessels. One may fall into the error of predicating trouble of the heart muscle when it is really a functional derangement of the blood vessels.

New York Medical Journal.

April 22.

8 *Sclerosis and Ossification of Veins. Carl Beck.
9 *Treatment Following the Bloodless Reduction of Congenital Hip Dislocation. Dexter D. Ashley and Frederick Mueller.
10 *Limitations of Chemistry in Infant Feeding. Henry D. Chapin.
11 *Some General Considerations on the Treatment of Typhoid Fever. Morris Manges.
12 *Contagiousness of Pneumonia. Robert N. Willson.
13 Tendency to Tuberculosis. John B. Huber.
14 My Experience with Phototherapy, a Preliminary Report. Julius Rosenberg.
15 *The Boulez Hospital Method of Burying the Stumps of the Appendix and Mesoappendix in Appendicectomy. Thomas E. Boulez.

8. **Sclerosis and Ossification of the Veins.**—Beck calls attention to the occurrence of osseous degeneration or calcification in the veins, and to the fact that real osseous degeneration of the venous walls does not seem to have received previous attention. He uses skiagraphic illustrations of such a case, and notes the danger of using the ordinary methods of laced stockings, elastic bandages, injections into the circumvascular tissues, or ignipuncture, as well as their futility in such cases. They require extirpation as the only means which guarantees recovery.

9. **Congenital Hip Dislocation.**—Ashley and Mueller describe the after-treatment of bloodless reposition in detail, with illustrations. The most important part of it is connected with the removal of the first plaster. It is not a matter of time that regulates this, but the condition of the contraction of the capsular ligaments and fibers and of the iliotrochanteric muscles which have been stretched. The time will vary with the individual from six to eight months, and be determined by the stability. Examination then may reveal a normal position, with satisfactory and secure station of the head, or the head resting in the acetabulum, but easily dislocated. The latter condition requires a second cast in primary or modified primary position. The parts may be found in normal position, but with considerable rigidity. The usual after-treatment is then to be employed, exercise, massage, etc., but if the progress is unsatisfactory, correction is made in the cast. It may also be found that the head is in abnormal position, resting on the horizontal branch of the pubic bone. Depression is here indicated. The head may rest above the acetabulum, underneath the anterior superior spine, or it may be located behind the acetabulum—a relaxation. The meeting of these conditions should be individual and secondary operations with anesthesia may be necessary. The writers promise an amplification of this subject in the coming article.

10. **Infant Feeding.**—Chapin's object in writing this paper is to show that food chemistry has limitations in practical feeding, and that the chemical teachings of a few years ago are not the same as those of to-day. The advances in infant feeding have come not so much from the analyses that have been made as from clinical and physiologic experiments with cow's milk, altered or modified in other ways than by simple quantitative adjustment of the component parts. The advances that have been made are along the line of physiologic adaptation of various milks than from exclusive chemical studies. As Jordan says: "The ration may be chemically right, though practically wrong, but it is worth a good deal to the feeder to be assured that the nutrients which he supplies to his animals will meet their physiologic needs." This probably applies to human infants as well as to the lower animals.

11. **Typhoid Fever.**—In considering the efficacy of any plan of treatment the fundamental fact must be borne in mind that the disease varies widely from year to year, and also the certainty that a number of patients will die, no matter what is done. To treat the disease on any specified plan is to court failure. Still Manges claims that in spite of all that may be said to the contrary, few diseases are more amenable to rational methods. Few yield more brilliant results, provided we exclude cases of typhoid sepsis, uncontrollable hemorrhage, etc. The most vital detail is the regulation of the diet, and the most important in this is to give proper direction to the nurse that the mouth shall be kept moist and the tongue and fauces clean. Possible obstruction of the nasal passages should be suspected and remedied if found. The care of the mouth and nose is of foremost importance in preventing possible pulmonary complications. Too little stress has been laid on the systematic taking of large quantities of water. Milk should be the most important part of the diet, provided it agrees. The rule that Manges follows with delirious or somnolent patients is to give liquids alone. If the patient is only apathetic or perfectly rational, he asks if he is hungry and desires something more, and if so, he does not hesitate to add carefully prepared semi-solids. He has seen a rise of temperature follow these, but the general results of the more liberal feeding have warranted its use. Obstinate vomiting in this disease is always a most disquieting symptom. The best plan is to suspend all nourishment and medication for six or eight hours, and if this fails, use rectal alimentation until the stomach becomes tolerant. In some cases washing out the stomach may be advisable. He thinks the stomach tube is too little used. Another use of the tube may be mentioned, that is, with delirious patients, whose very delirium may be the result of starvation. The condition of the patient rather than the reading of the thermometer should be our guide. Unduly high temperatures or badly borne "normal temperatures" demand treatment. The use of the tub is a valuable aid, but the old barbaric procedures are no longer needed. A bath of 90 F. reduced to 80 or 75, accompanied with proper friction, will be found ample. The drop in the temperature is, he thinks, the least important. The effects on the nervous system, the resultant leucocytosis, etc., should be considered. The pendulum, he thinks, has swung a little too far as regards the use of antipyretics, since the coal-tar products judiciously used give good results. The old-fashioned method of using quinin, according to Liebermeister, is admirable in many cases. It consists in giving 10 grains at 6 p. m. and 5 grains at 7 p. m. followed by some acid. No immediate effect is observed but the general course on the following day is decidedly better. There is a form of fever which, at times, is more trying than hyperpyrexia, the moderate or low febrile rises in the fourth or fifth week. It is sometimes hard to account for this, but in other cases constipation and inanition may be to blame. The use of high oil enemas may change matters at once, and another method is the use of large doses of quinin. He does not object to the rational use of intestinal antiseptics (which he styles the "golden calf so devoutly worshiped by the manufacturing chemists"), but prefers the early use of calomel, systematic use of hydrochloric acid, and the prevention of undue intestinal distension. The routine washing out of the lower bowel with a quart of saline solution is excellent. The absorption of typhoid toxins from the intestinal tract and the contents plays a less important rôle than does the general production of typhoid toxins in the blood, spleen, etc. He remarks that there is too much routine in stimulation. In the early period no stimulants are needed. As the pulse rate raises and the patient becomes more apathetic and somnolent, the rational use of hydriatic measures is of value, and when the bath is preceded by whiskey and followed by hot food they leave little to be desired. If still more be needed, caffein in proper doses should be employed. A sinking of the blood pressure and failing circulation demand in addition the use of strophanthus or spartein in full doses, at short intervals, hypodermically. Do not give stimulants of this kind until they are actually needed, and when you do, give them in such a way that they are actually absorbed—not into the atonic stomach; "they might as well be given by absent treatment." As a routine drug he considers strychnia a danger. He has seen a case of strychnia poisoning with moderate dose, and thinks it must intensify some of the effects of the toxins produced by the disease. For analogous reasons he rarely uses digitalis.

12.—This article has appeared elsewhere. See THE JOURNAL, xli, 782, p. 1049.

15. **Method of Treating the Stump of the Appendix.**—This article needs the illustrations to fully explain it. After the appendix has been brought up, the mesoappendix is tied off at or about its center in sections varying from one to four, usually

two or three, according to length; each succeeding ligature being made to include some fibers of the preceding. The meso-appendix is then cut down to its base, the adherent mesentery dissected from the appendix and removed, and a circular incision made through the peritoneal envelope down to the musculoconnective tissue, at or near its tip, and carefully pealed off throughout its entire length to, or very near, its colonic junction, where a fine silk ligature is thrown around the denuded base of the appendix. Another ligature is applied about a quarter of an inch externally to this, and the cut made between the two. The appendix is then removed. The glove finger of peritoneum is then turned back and slit along the line of former mesenteric attachment and spread out, making a flat membrane equal in extent to the circumference and length of the excised appendix. This is then made to cover the appendicular stump, together with the bare ends of the mesocecal stumps, and with edges turned in, it is carefully stitched to either side, where the peritoneum shades away over the mesoileum. While this method may not be applicable in all cases Soules has found it entirely satisfactory in operations performed during the interval or in cases in which, for protection only, the appendix is removed incidental to laparotomies for other causes.

Medical Record, New York.

April 23.

16 *Acute Infectious Osteomyelitis of the Spine and Acute Suppurative Perimeningitis. J. Ramsay Hunt.
17 The Protective Value of the Inspection of Public Women as Carried Out in Paris. Frederic Griffith.
18 *Some Points on the Diagnosis and Drug Treatment of Pneumonia in Infants and Young Children. Louis Fischer.
19 Prophylaxis of Puerperal Sepsis. George L. Brodhead.
20 *Preliminary Notes on Transillumination of the Stomach with Fluorescein. H. W. Lincoln.
21 Supplementary Note on a Case of Typhoid Spine. Leonard W. Ely.

16. **Acute Infectious Osteomyelitis of the Spine and Acute Suppurative Perimeningitis.**—The direct relation of the spine to the important organs makes osteomyelitic processes in this region of special interest. Hunt reports a case in rather elaborate detail and collates the literature on the subject. The symptomatology is reviewed at length and the difficulties of diagnosis pointed out; the abrupt onset in young adults, the intense local vertebral pain with progressive symptoms of infection should always suggest osteomyelitis. With persistent local tenderness, increasing sepsis, and superficial signs of deep-seated suppuration the diagnosis becomes reasonably sure. With the formation of abscesses, however, amelioration may take place which is deceiving. Tuberculous caries should never be confounded with it. Acute articular rheumatism as a cause of confusion is rare, though it may be misleading, and the possibility of pyogenic infection of pre-existing spondylitis must be borne in mind. The prognosis is generally bad, though the later results of operation are much more favorable than former ones. One of the commoner complications of this condition is primary perimeningeal suppuration, and this phase of the subject is discussed. A number of cases have been reported by French authors, in which no primary focus of trouble could be ascertained, but Hunt thinks that none of these were correctly estimated, and that all cases have as their origin some slight focus of osteomyelitis. He says the vertebral column is rarely the seat of acute infectious osteomyelitis. Sixty-two cases have been collected and are analyzed in the present communication. Great diagnostic difficulties are sometimes encountered owing to the immediate relation of the spine to the vital organs of the thorax and abdomen, and the spinal cord and its membranes. Retropharyngeal, mediastinal, retroperitoneal and paranephritic abscesses, pelvic abscesses, peridural suppurations, and general pyemia may be included among the complications. Peridural abscess or suppuration occurred in 24 of the 62 cases, 15 presenting grave symptoms of compression of the cord. The essentials of the clinical picture consist in symptoms of severe general infection associated with local signs of an inflammatory process in the spine, viz., excruciating pain and tenderness, edema and fluctuation. The mortality is 50 per cent. Immediate and thorough surgical interference is the only treatment. The paper concludes with an analysis of cases of so-called primary suppurative perimeningitis, which term, he thinks, might be abolished from our nomenclature, and the cases considered as identical with acute osteomyelitis of the spine.

18. **Pneumonia in Children.**—Fisher points out the contagiousness of pneumonia and the necessity for isolation and the difficulties of diagnosis in young children. The temperature is a poor guide. The symptom which he thinks is most important is the variation from normal of the pulse and the respiratory ratio. Normally the respirations are about one to four of the pulse, but with pulmonary disorder the proportion is increased. It may be 1 to 3. There are several varieties of obscure pneumonia such as central pneumonia, where the physical signs fail. Infants or very young children rarely cough or expectorate the characteristic sputa. For the treatment he advises free ventilation and all the sunlight possible, and a temperature between 68 and 72, never warmer, rather cooler. For stimulating the emunctories, he would use a drop dose of tincture of aconite added to half a teaspoonful of spiritus Mindereri given three or four times at hour intervals until perspiration is produced. A hot mustard foot bath will aid in reducing the temperature. If the fever persists, sponging with alcohol and tepid water every half hour will be grateful. If we have a high temperature of 105 or more the infant should be closely watched for twitching or spasm, and he advises a cold pack around the chest repeated every half hour until the temperature goes below 103. The bowels should be relieved with castor oil, or better still, citrate of magnesia. The nutrition is important. The interval of feeding should be prolonged and the food given well diluted. Infants receiving 6 ounces of milk before illness should receive during the pneumonia, four of milk and four of water. If this is not well borne substitute whey for the milk. The patient should not be disturbed to give medicines or food at too regular intervals. It is poor judgment, he thinks, to awaken a sick child for this purpose. He makes it a rule not to disturb the infant oftener than every two hours during the day and rarely oftener than every four at night, in the ordinary cases of pneumonia.

20. **Transillumination of the Stomach with Fluorescein.**—Lincoln uses a lamp for transillumination of the stomach with fluorescein as the translucent medium. A description of the lamp has already been published in the *N. Y. Med. Jour.* The heat thrown out by the light is minimum, the lamp being immersed in the solution. His method is to give the patient 10 or more grains of quinin during the day of the examination or the previous one, and then introduce the lamp. The patient then drinks a glass of water, in which have been dissolved 30 to 40 grains of sodium bicarbonate, to render the gastric contents alkaline. Then another glass of water into which has been placed ½ gr. of fluorescein, 1 dram of glycerin, and 20 or more grains of sodium bicarbonate. The abdomen being bared, he then conducts the patient into the dark room or, if at night, simply turns out the lights. He has successfully examined persons of all weights up to 175 pounds, with all thicknesses of abdominal wall. He says this can be done by no other method.

Medical News, New York.

April 23.

22 Behavior of the Costal Arch in Diseases of the Abdominal Organs and its Importance as a Diagnostic Symptom. (To be continued.) Ellsworth Eliot, Jr.
23 *Pulse as a Guide to the Life Insurance Examiner. Robert H. Babcock.
24 *Some External Diseases of the Eye Due to Rheumatism. Richard Kallah.
25 Rupture of the Spleen; Report of Two Cases. Charles F. Craig.
26 Some Features of Renal Tuberculosis. F. Tilden Brown.
27 *Hookworm Disease and Miner's Anemia in the Anthracite Coal Fields. Jonathan M. Wainwright and Henry J. Nichols.
28 *When and How Shall We Operate for Obstructing Hypertrophy of the Prostate Gland. Paul Thorndike.
29 *Reflections on the Surgery of Prostatic Hypertrophy. John G. Sheldon.

23. **The Pulse as a Guide to the Life Insurance Examiner.**—Babcock notes the over-estimation of the importance of frequency of the pulse, which depends more or less on the psychic and nervous conditions at work or some other factor that puts

vagus control temporarily in abeyance. Other signs of nervousness must be noted by the examiner. It is a good plan to make nervous individuals lie down; the heart will then quiet down materially, and then after a time they may be told to jump up quickly or hop on one foot to show the rate of the heart. The important point in determining the significance in frequency is the tension. Ordinary nervous tachycardia rarely increased the blood pressure, though Babcock's experiences lead him to agree with Rosenbach that increase of the tension and genuine pathologic acceleration generally coexist. Of course, this does not apply to increased frequency due to valvular disease, but to that form of hypertrophy seen in certain cases of myocarditis; in such cases the physician should carefully study the degree of the arterial tension. It is well also to take the temperature to see if the increased pulse is due to fever and to ascertain whether the patient is over-strained by athletics or sexual indulgences. A pulse of over 85 or even 100 is not to be regarded as in itself indicating cardiac disease. It is possibly of more serious import in elderly persons than in the young, but if no signs of beginning inadequacy exist it is not of pathologic significance. A low pulse below 60 may be normal to the individual, not always indicating a cardiopathy, but it can not be the result of nervous or psychic influences, and its cause should be sought out before attributing it to myocardial degeneration. Two points are noted; first, that retardation due to prolongation of diastole from increased vagus inhibition is very different from apparent bradycardia caused by failure of some of the heart beats to send a wave to the radial artery. Secondly, that bradycardia in a man of middle age is far more likely to be of serious import than in the young, since it may portend cardiac exhaustion. If the peripheral vessels show slight thickening or minute points of calcareous deposit and the aortic second sound is unnaturally ringing, suspect myocarditis. Intermittent pulse by no means always indicates a serious pathologic disorder. It may be due to increased inhibitory influence sent down from the pneumogastric. Some nervous factor is probably at work, when intermittence is observed in young and apparently healthy subjects. When it occurs in the middle-aged it may have the same origin or be due to gouty poison. Irregularity is another thing. It may be due to the fact that the blood is altered in quantity or quality or it may be due to myocardial disease. Whenever the pulse occurs irregularly under exercise it probably means myocardial disease, but objective signs of cardiac disease usually develop in such cases. The pulse tension id alluded to as a subject of importance. It may be the earliest sign of a state of things which will some day mean serious inadequacy of heart or kidneys or both. He, therefore, recommends as a part of the paraphernalia of every insurance examiner some one of the appliances for clinical recognition of too high blood pressure, such as Gaertner's tonometer, which he thinks would save many a dollar to the company and spare the examiner much mortification.

24. Rheumatic Eye Disease.—Kalish calls attention to marginal blepharitis in early adult life, recurrent styes or chalazion, circumscribed bulbar conjunctivitis, limited or not to the eyeball, and striated keratitis. There is a form of conjunctivitis limited to the eyeball, never encroaching on the membrane of the lid, and usually affecting only the nasal side. He points out the differences between this condition and scleritis, from which the diagnosis may sometimes be troublesome. There is a variety of this disease restricted to the conjunctiva directly over the insertion of one of the recti muscles which frequently causes mistakes. Lastly he mentions striated keratitis, a rare disease of which he has seen several cases. Intentionally no mention is made in this paper of chronic conjunctivitis of the rheumatic and gouty, corneal ulcerations of later life, scleritis and other ocular diseases due to rheumatism, because they are fully described in text-books, whereas those here mentioned are seldom alluded to but yield likewise to antirheumatic treatment.

27. Uncinariasis.—Wainwright and Nichols have carefully examined 400 miners in the anthracite region from fifteen mines, including all nationalities, ten cover slips being examined in every case. In only one instance was the hookworm found, and from Stiles' findings it seems probably to be of the European type. Another interesting finding was that of the *Strongyloides intestinalis* occurring in a native of Russian Poland. It would show, therefore, as far as the inquiry has gone, that the hookworm has not obtained much of a foothold in the anthracite mines, though its danger is a serious one.

28. Prostatic Hypertrophy.—The points Thorndike especially emphasizes are summarized as follows:

1. That the catheter has as wide a range of usefulness as it ever had in the palliation of obstructing prostatic hypertrophy.
2. That the various operative procedures at present at our command are to be resorted to, with the exception of certain small classes of cases referred to in these remarks, after the catheter has ceased to palliate.
3. That the time for this operative interference is at the moment when the catheter has ceased to palliate and not after months or years of further and unavailing struggle to make it do so.
4. That the more radical operation of enucleation, on the one hand, and the Bottini operation with its various modifications on the other, are not procedures of the same kind, do not have the same object in view, and are in no sense to be weighed in the balance, the one class against the other. They should rather be contrasted, the one class as radical operations aiming at a cure, and the other as efficient palliating procedures, each having its own distinct indications for its appropriate use.

29. Prostatic Hypertrophy.—Sheldon concludes that:

1. Infection is the all-important consideration in prostatics; 2, perineal drainage of the bladder relieves the patient; 3, many of these patients will not stand extensive operative procedures or long-continued anesthesia; 4, partial removal of the prostate, by the method herewith advised, will be tolerated by many infected patients, and a good result obtained; 5, perineal drainage of the bladder only should be done in desperate cases and in debilitated patients in whom morcellation is necessary. In these cases the prostate should be removed at the second operation.

Boston Medical and Surgical Journal.
April 21.

30 Introductory Lecture at University Bellevue Hospital Medical College. Beverley Robinson.
31 *Resection of the Nasal Septum, with Report of Fifteen Cases. Leon E. White.
32 *Some Clinical Observations on the Care of Septic Wounds. Arthur L. Chute.

31. Resection of the Nasal Septum.—White claims that this operation has certain decided advantages. It has already been described by Dr. Otto T. Freer in THE JOURNAL, March 8, 1902, and Feb. 7, 1903. White claims for it accuracy, everything being under the eye of the operator, the avoidance of splints, rapidity of recovery, lack of pain, largely due to absence of trauma, the short after-treatment, freedom from sepsis, free respiration within forty-eight hours, availability for both bony and cartilaginous deflections, the utmost possible space in the nasal cavities being restored, not only straightening the septum, but reducing its thickness to that of two layers of the mucosa, and lastly, the lumen of the concave side is never lessened. He refutes the objections which have been made to it. The greater part of his paper is taken up with a description of the operation, with illustrations of the instruments he has devised for its easier performance. The result in all of his cases was most gratifying. The nose is not sore or painful; the only discomfort was the packing, which obstructed the breathing for the first two days. As a rule there is so little reaction after the operation that the patients are not confined to their beds, and under special circumstances are permitted to return to their work the second day, though a week's rest is desirable. Their general condition should be carefully watched, and hours of rest and recreation inquired into and tonics prescribed if indicated.

32. Septic Wounds.—The conclusions reached by Chute from clinical observation of a large number of cases are in substance as follows: Dry sterile gauze dressings are far preferable for the dressing of septic wounds since by their greater power of absorption, they most efficiently drain the wound, and by their slight mechanical irritation and comparative dryness make granulations more active and aid Nature's reparative power. While moist dressings, antiseptic baths and irrigating fluids have a depressing effect, they are, however, indicated when one can not obtain sterile dressings or can not depend on the aseptic skill of those who are to apply them. "Antiseptic poultices" are not to be preferred to sterile dressings, and are dangerous. When irrigating fluids are necessary or when for some unusual reason we are unable to make a wound

of such shape that it can be properly dressed, sterile salt solution should be the fluid employed. Peroxid of hydrogen should be avoided since in partially closed cavities or loose tissues the gas produced may aid in the spread of infection. For the routine method the dry gauze treatment is best.

Cincinnati Lancet-Clinic.

April 23.

33 *Malignant Neoplasms of the Kidney. With Report of a Case. H. O. Smith.
34 Important Cases of Appendicitis, with Deductions. J. G. Carpenter.

33. Malignant Growths of the Kidney.—Smith reports a case and describes the usual symptoms, diagnosis and prognosis. In the case reported there were no symptoms except the presence of the tumor, which was enormously developed and resembled a cystic condition. In conclusion he emphasizes the fact that the only hope in malignant neoplasm of the kidney is complete extirpation, the earlier the better. The early recognition of the condition is important. The ability to recognize small renal growths comes from frequent practice in palpating the region. He suggests that the renal region be frequently and repeatedly palpated in every case with obscure urinary symptoms.

St. Louis Medical Review.

April 23.

35 Postmortem Technic. Arthur C. F. Brown.

Medicine, Detroit.

April.

36 *Address on Insanity. Charles W. Burr.
37 *Treatment of Bright's Disease. Arthur R. Elliott.
38 *Relation of the Nose and the Genitalia. Eugene S. Talbot.
39 Roentgen-ray Treatment of the Eye and its Appendages. William M. Sweet.
40 *Use of Acetozone in Otology and Rhinology. John F. Barnhill.
41 *Insomnia. Charles J. Aldrich.
42 The Disposal of Dejecta in Small Communities. Seneca Egbert.
43 Case of Alleged Ptomain Poisoning. Joseph McFarland.
44 Medical Folklore of Childhood. Harriet C. B. Alexander.

36. Insanity.—Burr's address calls attention to the limitations of our knowledge as yet existing in regard to insanity, the large amount of crude data that we have on hand, which needs new methods of research to enable it to be utilized for fruitful pathologic and therapeutic results. He doubts the autointoxication theory that is becoming popular, at least as regards its universal application. In some types an inherited congenital defect must be recognized. The popular mind is too pessimistic regarding the curability of insanity, though undoubtedly certain forms are incurable, of which he mentions paresis and paranoia. There is one incurable, incorrigible form to which he devotes considerable space, that is, the high-class imbecile, including the criminal defective and moral insane. He points out the expense to the state from such cases, and says that the jail and house of correction contain imbeciles committed for short terms who should be under control or legal restraint throughout their natural lives. It would be cheaper to segregate these high-grade imbeciles for life under conditions in which they would be obliged to work for their own sustenance. The imbecile criminal is not reformable. The address closes with a few remarks on treatment, including the need of quiet and diet, and keeping the bowels well opened, followed later by judicious exercises and individual management. He says a word for blood letting in acute mania of the plethoric cases. He mentions alcohol as a stimulant in exhaustion conditions, though he would advise against encouraging the habit.

37. Bright's Disease.—Elliott reviews the dietetic management of Bright's disease, the exclusion of foods producing alloxuric bases such as meat extracts, broths, animal foods, certain green vegetables, fruit containing kernels, cranberries, yolk of eggs, liver, kidney, sweetbreads, all malt liquors and alcohol, and the restriction of the class of proteid foods to control within certain bounds the formation of urea. The regulation of the amount of proteid food is the main consideration of the dietary of Bright's disease. The degree in which we should reduce the albumin depends on the character of the renal lesion, the more nearly the disease approaches the acute form the more exclusively should milk be used as the chief source of proteids. Of course, it will require modification to make it perfectly satisfactory. In chronic nephritis the question of diet is more involved. We can not restrict the albuminous foods so much and the milk diet is not favored at the present time. The free ingestion of fluids may clear out the kidneys in certain chronic cases when the permeability of the kidney is regained. Special care should be given to the heart and circulation, as high tension and cardiac failure are threatening elements. The rules of cardiac hygiene must be scrupulously observed. Restriction in the amount of ingested fluids is one of the most important of these rules. What promises to be an important advance in the therapeutics of Bright's disease is, he says, the treatment by dechlorination suggested by Widal and Javal, whose observations have been confirmed by Merckien and Courmont. (See THE JOURNAL, xli, p. 1171.) He has had opportunity to demonstrate the advantage of this method in two cases. As regards medicinal treatment we should not expect too much. The policy should be non-interference except where developing complications give positive indications. All drugs belonging to the class of diuretics are to be avoided in acute inflammatory conditions; even the simple alkaline diuretics form no exception. A careful regulation of the bowels to secure free daily passage is essential, and the greatest advantage will follow colonic lavage. The beneficial action of this procedure on the kidneys is obvious. In chronic parenchymatous nephritis he speaks well of the use of the prolonged administration of iron as being required more than in ordinary systemic anemia. Laurettes have a limited field of usefulness. The most that can be accomplished is secured by the administration of simple saline diuretics, which, by producing alkaline reaction of the urine, may improve the renal drainage by dissolving out the albuminous plugs which obstruct the tubes. In chronic interstitial nephritis the main thing is the care of the heart and circulation. As regards the use of digitalis, it should never be employed during the stage of cardiac hypertrophy and before signs of compensatory failure supervene. When nitroglycerin is used in association with digitalis the time of administering the former should be about an hour after the digitalis has been given. Conservatism in dosage should be observed. He speaks unfavorably of the surgical treatment of Bright's disease in general, though he says there is no doubt but that the operation has its place. In movable kidney complicated by alkalinity and casts, its value is acknowledged, and in cases of non-obstructive suppression of the urine and acute nephritis which shows a tendency to chronicity, incision of the capsule by relieving tension and establishing drainage may prevent an acute nephritis from becoming chronic. Some cases of genuine Bright's disease have had temporary improvement from decapsulation, and these were almost without exception cases of parenchymatous nephritis complicated by anuria of renal origin, but with competent hearts. Most of these, he thinks, relapse within a few months. He predicts that the Edebohls operation will be relegated to oblivion to a great extent in the near future.

38. The Nose and Genitalia.—Talbot's article calls attention to the nasal symptoms associated with excitement of the genitalia, giving a number of interesting facts from literature and reporting cases of his own observation.

40. Acetozone in Otology and Rhinology.—Barnhill notices the value of acetozone in chronic otorrhea, also in sinus abscess, syringing the solution into the sinus after it has been thoroughly opened and curetted. He has also used it in cases of furunculosis of the external auditory meatus and in cases of infection of the follicles of the nasal vibrissæ. He has also used acetozone as an inhalant, by means of a Boeckel nebulizer. This was in cases of laryngeal and tracheal irritation with cough, and from a face shield under pressure of twenty pounds, each treatment covering a period of from five to ten minutes. He is not satisfied yet as to the value of the treatment in the latter group.

41. Insomnia.—The treatment of insomnia does not resolve itself into a choice of drugs. Not one has been discovered which, when frequently used, does not demand an increase of

dose. One class of insomnia is that from irritative causes due to cold feet or acroparesthesia; another class is due to toxic causes, alcoholism, nicotinism, gout, Bright's disease, gastrointestinal disorders, etc. He speaks highly of hydrotherapy in most forms of the acute affection when it is not contraindicated, and remarks that the insomnia of alcoholism is one of the worst of all forms to treat. He believes more in hydrotherapy in this condition than in chloral. He has been in the habit of using bromids in large doses in combination with other remedies. He thinks the use of hypnotics in pneumonia very reprehensible except in complicating delirium tremens. The insomnia of the gouty is mentioned, and he has found the administration of cobmaresial nitrate of potash, in 20-30 grain doses dissolved in a glass of water, twice a day, to be one of the best eliminants and reducers of arterial tension in gouty cases, but he does not recommend it where the kidney is affected to the extent of producing albuminuria. Among the psychic causes he includes grief, shock, worry and sexual erethism. Habit insomnia may result from unnatural hours of sleep. Morning insomnia he considers a variety of habit insomnia. Among the degenerative types is the insomnia of senility due more or less to interference with the nutrition of the brain cells. Easily digestible and agreeable food at bedtime is perhaps one of the best methods of treatment of some of the cases. Cases resulting from change of life are mentioned, and the fear of insomnia as a cause of trouble in cases of nervous irritation. He thinks that the seriousness of insomnia is generally over-rated, and that it is consequently overtreated. For the insomnia of the climacteric he has been in the habit of prescribing a glass of hot water at bedtime, to which two ounces of camphor water with 10 or 20 grains of bromid of potash and some tincture of sumbul and hops have been added. Insomnia from pain demands relief from the pain. For this opium is the most effective remedy, excepting in neuralgia, where 10 or 15 grains of phenacetin or a lesser amount of acetanilid are often very effectual. Opium should never be given for the pains of hysteria or neurasthenia. Codein in small doses along with methylene blue is often most effective. Before prescribing the latter remedy he prepares the suggestible mind of the patient by the positive assurance that when the urine appears blue the pains will cease and sleep will come. This is not all purely suggestion, for methylene blue is a decided sedative in some cases. In general pruritus calcium chlorid is mentioned as a valuable remedy which he has used empirically for a number of years, but can not explain its action. In the insomnia of gout he lately has been pleased with erythrol tetranitrate which lowers the high blood pressure.

Annals of Surgery, Philadelphia.

April.

45 *Traumatic Asphyxia. Report of a Recent Case, with a Study of the Minute Pathology and Summary of Reported Cases. H. H. A. Beach and Farrar Cobb.
46 *Operation in Spinal-cord Injuries. Samuel J. Mixter and Henry Melville Chase.
47 *Present Status of the Operation of Gastroenterostomy. John Rogers, Jr.
48 Gastric Dilatation and Tetany. John H. Cunningham, Jr.
49 *Spontaneous Gangrene of the Hollow Viscera. A Study of Mesenteric Occlusion. Roswell Park.
50 Chronic Empyema of the Gall Bladder. Report of a Case of Thirteen or More Years' Duration. Ernest J. Mellish.
51 Traumatic Pyeloparanephric Cyst. Bern B. Gallandet.

45. **Traumatic Asphyxia.**—Beach and Cobb report and illustrate a striking case of this condition resulting from severe pressure on the chest, treated with good results, and they review the literature to some extent, especially the theories as to the cause of the change in color. Microscopic examinations were made of the blue-black skin in this case, and they find from results that the theory of discoloration as being due to hemorrhage is wrong. They are inclined to believe that there were no hemorrhages of any extent whatever into the skin, and that the discoloration was due to a stasis from mechanical over-distension of the veins and capillaries, with or without paralysis, from engorgement of or pressure on the sympathetic nerves. They comment on the great value of artificial respiration after release of the individual from compression, and say it is rational to suppose that the immediate use of artificial respiration and oxygen might resuscitate some cases when it could be applied at once. The cases that live without such aid will always be very rare. The secondary treatment aside from combating shock must be symptomatic.

46. **Spinal Cord Injuries.**—Mixter and Chase report two cases in which degenerative conditions were traced down from the motor tract of the cord. They ask what is the value of operation and answer by saying that it removes the depressed fragments and blood clots; it allows the escape of exudate and makes room for inflammatory thickening; if extensive hemorrhage is present, either intradural or extradural, it relieves pressure and gives space for traumatic spinal edema. There is no other method by which one can diagnosticate slight or great pressure from fragments of bone or large or small hematoma, or determine whether the pressure is constant or temporary. The fact that the cord looked normal in the cases reported does not preclude the possibility that pressure had existed and that drainage and relief were not distinctly beneficial. Patients do not suffer from the ill effects of the operation *per se*, and its dangers are very slight compared with its possible benefits and the knowledge that the surgeon gains that continued pressure does not exist.

47. **Gastroenterostomy.**—The operation of gastroenterostomy and its difficulties are noticed by Rogers, who finds that the operation has been too often one of last resort and that this accounts for the number of failures. Absolute asepsis is unattainable at present in any operation on the interior of the alimentary canal, but infection should be escaped as much as possible. The vicious circle, vomiting, is one of the most common causes of death, and the attempts to avoid it by giving the loop some particular position in relation to its mesentery, its legs, or the stomach or colon, or by making an enteroanastomosis, lead to too prolonged operations, with their numerous dangers and many infections. Experience, however, has demonstrated the necessity of making a fistula as near the greater curvature of the stomach as possible, and also the value of an enteroanastomosis as the base of the legs of the loop. Another result of his experience has been the survival of the Murphy button against all mechanical competitors. Accidents have sometimes happened, but dangerous or fatal vomiting is at least rare, apparently because the button, by nearly filling the lumen of the gut, is a hindrance to sharp kinking or spur formation. Of the other methods not involving any loop, the first is gastroduodenostomy, but gastrojejunostomy is undoubtedly a necessity in the greater number of cases. Roux' Y method has many unpleasant possibilities, the chief of which is the time required and the increased risk of infection. Another operation which does not involve the use of any loop is specially mentioned, that is, the one described by Petersen as used in Czerny's clinic. It is based on the simple anatomic principle that the first few inches of the jejunum lie directly in contact with the posterior surface of the stomach, separated from it only by the non-vascular portion of the mesocolon, and that this part of the jejunum descends vertically and without any turns. The details of the operation are given by the author. Several cases are reported to illustrate the Czerny-Petersen method. From the result of his own experience and from what he collects from others, gastroenterostomy as above described is the most satisfactory operation, and sooner or later it is likely to come into more general use than formerly for chronic, benign gastric disease. The permanency of the artificial opening and its desirability in the presence of a patent pylorus is a problem. It seems necessary to close the pylorus as only under such conditions has experience shown that the new opening will remain patent. The article closes with an extensive bibliography.

49. **Spontaneous Gangrene of the Hollow Viscera.**—Park reports two instructive cases, the most pronounced of any that he has encountered in the literature. The patients in both cases were taken acutely sick. Pain in the abdomen was soon followed by collapse, rigidity and vomiting of coffee-ground matter. An exploratory operation showed very extensive gangrene of the intestines; both cases were fatal. The mesenteric occlusion which is credited with the cause of these conditions

is discussed at length. The more extensive the area the more constant and overwhelming will be the symptoms. Park goes over the differential diagnosis from perforating ulcer of the stomach and duodenum, obstruction, pancreatitis, appendicitis, etc., and remarks in conclusion that in the presence of constant and acute symptoms, including intense abdominal pain, collapse and rigidity of the abdominal wall, very little time should be wasted in speculation as to the character of the lesion. Such cases indicate the immediate necessity for abdominal section. No case that would be lost without operation will be lost in consequence of it, while without it the condition must of necessity prove fatal. Where the patients die under such circumstances they die in spite of operation instead of because of it.

Journal of Cutaneous Disease, New York.

April.

82 Symmetrical Cutaneous Atrophy with the Coincident Development of Syphilis of the Skin and Nervous System. J. A. Fordyce.

83 Case of Chronic Symmetrical Diffuse Hyperemia of the Extremities (Erythromelie). Hermann G. Klotz.

84 *Pityriasis Rosea. Harvey P. Towle.

84. **Pityriasis Rosea.**—Towle has been able to collect from the records of the dermatologic department of the Massachusetts General Hospital, 158 cases of pityriasis rosea and to add to them from the private records of Dr. J. P. Bowen 44 more, making a total of 202, inspecting the character of the lesions, their distribution, the presence of primitive plaque, the month of the occurrence, the sex, age, the presence of prodromata and accompanying general disturbance, itching, recurrences, race and occupation. In 5 he made blood examination and in 2 histologic examination. From the results of the analyses of these cases he deduces the following: Pityriasis occurs in the two forms, the macular and the circinate, with about equal frequency. It affects most often the trunk and upper parts of the extremities, but is occasionally confined to one part. The *plaque primitive* is not always found. The disease is most frequent in the autumn months and far more common in women than in men. While it may occur at any age, it is more common between twenty and thirty. As a rule, there are no prodromata or accompanying health disturbances, and itching may be present or absent. Recurrences, though rare, do occur. Race and occupation have no influence. The blood shows certain changes which, however, are not characteristic. Histologically the chief changes are in the cutis.

Annals of Gynecology and Pediatry, Boston.

April.

85 *Atypical Appendicitis. Ernest W. Cushing.

85. **Atypical Appendicitis.**—In some cases of appendicitis the symptoms are so indefinite, especially in women, that it is impossible to make a diagnosis. It frequently happens that mild or masked appendicitis is the cause of suffering supposed to be sufficient trouble in the appendages to explain the symp- advisability of examining the appendix in all operations for obscure pelvic disorder, especially when there does not seem to be sufficient trouble in the appendages to explain the symptoms. If the condition permits, it is wise to remove the appendix; that is, one that is longer, thicker and harder than normal. The hardness is more important than an increase in size. If such appendices were always searched for, there will be fewer cases where the patient is not cured after removal of the uterine appendages. He reports cases and taimks the following conclusions warranted:

> Many cases of obscure abdominal affections are due to appendicitis, although the symptoms are not sufficiently clear to make a diagnosis. The appendix should be examined in most operations for pelvic disease. Operation is indicated in all cases of appendicitis where there is at any time a decided elevation of temperature. The median incision is preferable in old and complicated or doubtful cases, particularly in women.

Colorado Medicine, Denver.

April.

86 Some Points in Modern Theories of Immunity. Henry Sewall.

87 Injuries at the Elbow Joint. Charles B. Lyman.

88 Case of Multiple Depressed Fracture of the Skull. Recovery. S. D. Van Meter.

89 Conservative Surgery. George C. Stemen.

90 Review of One Hundred Consecutive Operations for Appendicitis. Leonard Freeman.

91 Intrauterine Flushing and Drainage for Infection. The Passing of the Curette and Douche. H. G. Wetherill.

92 *Cholecystostomy vs. Cholecystostomy—A Plea for the Plaintiff. Maurice Kahn.

93 *Specifics and Specific Methods in the Treatment of Pulmonary Tuberculosis. S. Simon.

92. **Cholecystectomy.**—Kahn advises this operation in preference to cholecystostomy, claiming that it is no more hazardous and that it guards against further trouble better. He reports a case.

93. **Tuberculosis.**—Simon reviews the various drugs and the methods of treatment that have been devised for tuberculosis, such as antiseptics like creosote, arsenic, iodin, gaseous enemata, antiseptic oils, intralaryngeal injections and nuclein, the various serum treatments that have been and are being employed, as well as the *x*-rays and the Finsen light. He does not find in any of these a specific remedy for tuberculosis, and does not believe there will be any one specific found. A great deal can be done, however, for the early cases by individual treatment, environment, diet and general hygiene, pulmonary gymnastics and symptomatic treatment with drugs.

Interstate Medical Journal, St. Louis, Mo.

April.

94 *Case of Thrombosis of the Superior Mesenteric Artery. H. G. Mudd.

95 The Clinical Significance of Prolonged Uterine Hemorrhage. J. Wesley Bovée.

96 *Radiotherapy in the Treatment of Acne Vulgaris. (Continued.) Martin F. Engman.

94. **Thrombosis of the Mesenteric Artery.**—A case is reported by Mudd in some detail, with a partial examination confirming the diagnosis and a general discussion of the literature. The symptoms seem to be pain, vomiting, diarrhea, often bloody, subnormal temperature, abdominal distension, etc. The diagnosis is largely based on the occurrence of intestinal hemorrhage not explicable by other causes. It is frequently impossible and generally only tentative or uncertain. The only treatment is operative, and the question is how much of the bowel can be safely removed. Only exploratory section will tell whether the case is absolutely hopeless or not. In any case, Mudd says, where occlusion of the mesenteric vessels is suspected, or in which for any reason operation is not made, the heart's action should be stimulated in every possible way, bearing in mind that the only hope in such cases is the establishment of the collateral circulation which may enable the affected parts to regain their vitality. He considers the estimate given by Watson of one-sixth of the cases as amenable to surgical intervention as rather larger than the facts warrant.

96. **Radiotherapy in Acne.**—Engman's paper is concluded in this issue. He remarks that the rays are almost specific in these cases, nothing else meeting the indications so satisfactorily. Relapse is not frequent as under older methods. Acne is not a harmless disease; though not threatening life, it may destroy the enjoyment of it. The dangers of the *x*-ray are not sufficient to overthrow their advantages in special conditions. Of the thousands of cases of acne treated by the rays he has not been able to find a report of a burn of any degree, though undoubtedly such may occur. Any erythema occurring on the face of a patient during *x*-ray treatment should be looked on with suspicion. He inquires as to the reaction of the patient's skin to sunlight, as an indication of their possible susceptibility to the *x*-rays. The first exposure is five minutes with the soft tube. The hair, eyes and eyebrows are protected, and the tube kept nine inches from the skin. Four days later a similar exposure is given; then again in three days, and afterwards in two days. After the initial exposures the rays are used three times a week, the length of time varying from five to ten minutes, with a tube never nearer the skin than six inches, usually eight. In no case does the current exceed two amperes, with the light always at the initial degree. In his 48 cases bronzing occurred once and erythema once during the treatment. He gives a resorcin and zinc oxid lotion for the patient to use on the face several times a day, and he should be cautioned against infection. Atrophy of the skin has been reported, but he does not see how it can occur without some inflammatory symptoms. If undue haste to cure is avoided and mild treatment continued patiently, the danger, he thinks, would be slight.

Alabama Medical Journal, Birmingham.

April.

68 *Influenza in Children—Its Abortive Treatment. J. Ross Snyder.
69 Influenza. W. C. Maples.
70 Report of a Case of Appendicitis. C. L. Morris.
71 Puerperal Infection. J. F. Jenkins.
72 *Gunshot Wound of the Abdomen—Eighteen Perforations—Intestinal Resection (5 ft. 7 in.)—Recovery. John D. S. Davis.

68. Influenza in Children.—This protean disorder may occur in children and be recognized with difficulty. The most common mistake is to take it for an ordinary "cold," but if bacteriologic examinations are made more generally a larger number of diagnoses of this condition will be the result. The treatment Snyder here advises is to put the child to bed in a well-ventilated room, protected from draughts. Calomel is given until the bowels move freely. There should be plenty of fresh air. He then follows Southworth's method for the abortive treatment of inflammation of the cervical glands, which has for its purpose the prevention of further absorption of infectious matter from the nasopharynx. For the fever he gives tablets containing ¼ grain each of tincture of aconite and belladonna with 1/10 grain of camphor; one-half to one tablet every two hours. For the pharyngeal complications he uses chlorate of potash 1 to 2 grains every two hours for twenty-four hours, and then less frequently, and very cautiously watching effect on kidneys. A Seiler antiseptic tablet dissolved in half a glass of water, pouring a little into each nostril every three hours. If the child is old enough he would give an antiseptic gargle. If there is earache he would use 4 grains morphin and 1 grain atropin sulphate, with 15 grains boric acid in one ounce distilled water, dropping from three to six drops into the ear and allowing it to remain for twenty minutes. The diet has considerable to do with the treatment. If the child refuses diluted milk nothing but water is given. In the beginning cases usually do well without nourishment.

72. Abdominal Anastomosis.—Davis reports a case of gunshot wound with 18 perforations of the intestine and resection of five feet seven inches, followed by recovery. He describes the button which he uses and which he thinks has an advantage over the Murphy button, being without a spring. He also has a horseshoe button which he would use for partial opening of the intestine where necessary and for other purposes. Both of these are illustrated.

Memphis Medical Monthly.

April.

73 *Colitis: Operative Treatment. Report of Three Cases. Max Henning.
74 *Bronchial Breathing in Pleurisy with Effusion. O. S. McCown.
75 Some Cases of Ophthalmia Neonatorum. E. C. Elliott.
76 Diphtheria. Some Points in Its Prophylaxis and Treatment. W. M. Stinson.
77 Tuberculosis of the Larynx. Richmond McKinney.
78 Drug Habit. W. S. Robinson.
79 *A Suggestion in Treating Pneumonia. Herbert E. Brown.
80 Treatment of Carbolic Acid Burns. (Anon.)
81 Vicarious Menstruation. A. M. Hughes.

73. Colitis.—Three cases are reported by Henning in which operation was performed, in one of which the appendix was used according to Weir's recommendations, though the author does not mention Weir's publication on the subject. Two cases were entirely successful.

74. Bronchial Breathing in Pleurisy with Effusion.—From his observation McCown thinks that where bronchial breathing is associated with extensive flatness on percussion, obliteration or bulging of the intercostal spaces, and fixation of the affected side, he would be inclined to attribute it to pleural effusion and not to pulmonary consolidation. If the left side is affected, displacement of the heart's apex would be a strong point in favor of this view.

79. Pneumonia.—Brown makes the suggestion of constricting the extremities to cut off return circulation and prevent excessive flow to the inflamed lungs.

Critic and Guide, New York.

April.

82 The Inhumanity of Refusing the Parturient Woman the Boon of Anesthesia. L. A. Shirley.
83 The Treatment of Gallstones. Wm. H. Thomson.

Northwestern Lancet, Minneapolis.

April 15.

84 Hospital Organization. James Tyson.
85 Acute Otitis Media. J. G. Parsons.

American Practitioner and News, Louisville, Ky.

April 1.

86 Gastric and Duodenal Ulcer. William H. Wathen.
87 Gonorrhea from a Surgical Standpoint. A. D. Willmoth.

Maryland Medical Journal, Baltimore.

April.

88 Puerperal Eclampsia Presenting Some Unusual Phenomena. H. H. Arthur.
89 Act to Protect Citizens of Maryland from Certain Communicable Diseases, Especially Tuberculosis of the Lungs and Larynx.

Medical Age, Detroit.

April 10.

90 Pleurisy with Effusion, and Its Treatment. Charles F. Flanders.
91 Acute Sporadic Dysentery. J. S. Cain.
92 Systemic Infection from Gonorrhea. Nathan C. Morse.

Detroit Medical Journal.

April.

93 Cancer of the Breast. Richard R. Smith.
94 Operation for Adenoids. P. M. Hickey.
95 Temporary Unilateral Deafness, Accompanying an Inflammation of the Right Sphenoidal Cavity. Emil Amberg.
96 Adhesions. Frank E. Pitcher.
97 The Action of Passiflora Incarnata. W. J. Stapleton.

Northwest Medicine, Seattle.

April.

98 Dr. D. S. Maynard, the Pioneer Physician of Seattle. Thomas W. Prosch.
99 Swedenborg's Vortex-rings and Some of Their Applications in the Realm of Natural Science, with Especial Reference to the Subject of Thought. (Continued.) E. B. Edson.
100 Free Dispensaries and Their Abuse. Edith P. de Veux.
101 Extra-uterine Pregnancy. Frank W. Hall.

Virginia Medical Semi-Monthly.

April 8.

102 Complications of Gastric and Duodenal Ulcer. John H. Gibbon.
103 Interesting Case of Subastragaloid Dislocation. Lewis C. Bosher.
104 Mastoiditis; with Special Reference to the Surgical Treatment. H. H. Briggs.
105 Comments on the Sequelæ of Neglected Adenoids. John Dunn.
106 Care and Repair of the Perineum. J. T. Graham.
107 Local Antiseptic Measures in Scarlet Fever. Leonard D. White.
108 Eczema: A Résumé. Thomas W. Murrell.
109 Superheated "Dry Air" as a Therapeutic Agent. Bittle C. Keister.
110 Vinum Colchici Seminis. Sine Colchicina. Robert M. Sterrett.
111 Ebonation in Mangling of the Digits, in Burns, Deformities of Appendages in Spastic Paralyses. Thomas H. Manley.

Iowa Medical Journal, Des Moines.

April 15.

112 Experimental Investigations with Radium on Living Tissues. J. Rudis-Jicinsky.
113 Pernicious Anemia. With Report of a Case. Charles A. Mulroney.
114 The Infected Uterus. F. R. Walker.
115 Etiology and Treatment of the Most Common Forms of Defective Speech: Stammering and Stuttering. James M. Brown.
116 Erysipelas. W. R. Ely.
117 Congenital Syphilis. Mother Escapes Infection. Second Wife Infected. (Anon.)
118 Case of Gunshot Injury in Which One Bullet Blinded Both Eyes. James Moores Ball.

Columbus Medical Journal.

April.

119 Out-of-Door Treatment for Tuberculosis at the Columbus State Hospital. Geo. Stockton.
120 Colds. C. F. Libart.
121 Tonsilitis as a Prodrome to Acute Articular Rheumatism. A. C. Miller.
122 Relation of the Medical Practitioner to Preventive Measures Against Tuberculosis. Arthur Newsholme.

Washington Medical Annals.

March.

123 Laryngitis Hypoglottica Acuta. Charles W. Richardson.
124 Acute Leptomeningitis. Geo. N. Acker.
125 Chronic Pachymeningitis. D. Percy Hickling.
126 Pachymeningitis Hemorrhagica Interna, Following Injury. D. S. Lamb.
127 Old Fibroid Tumor—Hysterectomy. J. Taber Johnson.
128 Submaxillary Salivary Calculus. S. R. Karpeles.
129 X-ray in Pulmonary Tuberculosis. F. P. Vale.
130 Antimus. Joseph T. Howard.
131 Hydatidiform Mole. Deciduoma Malignum. Chorion Epithelioma. A. F. A. King.
132 Anomalous Articulation and Fusion of the Atlas with the Occipital Bone. A. Hrdlicka.
133 Empyema in Children. J. S. Wall.

134 Cerebral Hemorrhage of Ten Weeks' Standing. D. S. Lamb.
135 Surgical Methods Among the Savage Races. Edwin Lee Morgan.

Southern California Practitioner, Los Angeles.

April.

136 The Transmission of Diphtheria. L. M. Powers.
137 Pneumonia. A. T. Newcomb.
138 Placenta Previa. John C. Perfert.
139 "Alum is Poison." Lincoln Stefens.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

April 23.

1 *The Treatment of Retroversion of the Gravid Uterus. G. Ernest Herman.
2 Extrauterine Pregnancy. A. E. Hind.
3 Treatment of a Case of Depressed Fracture of the Skull Caused During Birth. Andrew B. Ross.
4 *The Glycogen Reaction in Blood: Its Pathological and Diagnostic Import. G. Lovell Gulland.
5 Observations on Some Tests for Albumen in Urine. Charles Murray.
6 *An Inquiry Into the Primary Seat of Infection in 500 Cases of Death from Tuberculosis. J. Odery Symes and Theodore Fisher.
7 Two Cases of Primary Malignant Disease of the Pancreas. Joseph Stewart.
8 Some Unusual Conditions in Gall-bladder Surgery. E. Stanmore Bishop.
9 A Case of Lead Encephalopathy. W. Russell Judd.
10 Trypanosomiasis and Morbus Dormitivus. Alex. Maxwell Adams.
11 An Address on the Proposed Medical Acts Amendment Bill. J. P. Williams-Freeman.
12 Consultations Between Medical Witnesses. W. J. Greer.

1. **Retroversion of the Gravid Uterus.**—The reason why this condition requires treatment, according to Herman, is simply because it leads to retention of urine and its effects. This may cause death by the transmission of the infection from the bladder to the kidneys and ureter. The bladder may give way and extravasation take place. This is not bursting of the bladder, but a perforation by destructive inflammation. Death may take place from peritonitis, and it is commonly stated that when the retroverted gravid uterus is not replaced sloughing of the uterus and a slow discharge of its contents through the rectum and vagina may occur. This Herman doubts and analyzes the reported cases, showing how they were probably ectopic pregnancies and in no case absolutely convincing. The statement as to the danger of abortion in retroversion of the gravid uterus he thinks is without foundation. The treatment is simply the use of the catheter, withdrawing the urine. There is no evidence that retroversion itself has any ill-effect on the organ. Its only importance arises from its ill-effect on the bladder. Keep the bladder empty and the patient recumbent and in over 90 per cent. of the cases the uterus will right itself. If it does not, pregnancy will still go on. The uterus will enlarge, its anterior wall rising in the abdomen to accommodate the growing fetus and the bladder, ureter and cervix accommodate themselves to the altered position and retention ceases. Unfortunately, it has already done harm in many cases. Still, while it is not absolutely necessary, reposition is often advisable. Herman has never seen a case that could not be pushed up. If there is difficulty in doing this by way of the vagina then use two fingers in the rectum under anesthesia. He sees no reason for performing abdominal section in these cases.

4. **The Glycogen Reaction in Blood.**—This reaction has been mainly studied on the continent and in America, and has received too little attention in Great Britain, according to Gulland. The solution which serves for fixing the stain and mounting is composed of iodin 1 gram, iodid of potash 3 grams, distilled water 100 c.cm., with enough gum acacia or gum arabic to make the fluid syrupy. The bottle should be kept tightly corked to prevent the evaporation of the iodin. A rather large drop of this solution is placed on a clean slide and the ordinary air-dried blood films on a cover glass, lowered on to it and allowed to remain undisturbed for half a minute for complete staining and then displaced toward one end of the slide in order that the thick layer of fluid may not cut off too much light in the examination; or the surplus fluid may be removed with a filter paper. The gum soon sets and the preparation will keep for weeks, though it gradually fades. The specimen is at once ready for examination and this must be done with an oil-immersion lens and a good light. In a film of normal blood treated in this way the red corpuscles will stain yellow or white on a faintly yellow background and the white corpuscles of a much finer lemon-yellow tint. The lymphocytes, indeed, can hardly be distinguished except by the slight difference in the refractive index of their nuclei. The eosinophiles can at once be recognized by the high refractive index of their granules and the polymorphonuclear neutrophiles always look darker than the others. In none of these should there be the least trace of red or brown. The above appearances constitute the negative reaction. In the positive reaction the changes occur in the polymorphs alone and the cells affected give a brown or reddish-brown color of glycogen in three ways: as a diffuse color, as a fine granulation and as coarser scattered granules or masses. The nuclei are never affected. The number of cells affected in the positive reaction varies greatly, from only 2 or 3 per cent. to almost all, but, if after five minutes' searching or the passing of 100 polymorphs in review no positive cell is seen, the reaction may be considered negative. The chief diseases in which the positive reaction is constant are croupous pneumonia, bronchial pneumonia, empyema, abscess or gangrene of the lung, septicemia, pyemia of all kinds, all advancing suppurating processes, all septic gangrenes, appendicitis and peritonitis and other conditions of less importance. The conditions in which it is absent are equally important, such as rheumatic fever, chronic rheumatoid arthritis, chorea, rickets, infantile atrophy, congenital heart disease, catarrhal jaundice, tubercle, pleurisy, bronchitis, whooping-cough, asthma, etc. Gulland thinks the method which enables us to approach the greatest certainty in the diagnosis of deep-seated pneumonia and to distinguish gonorrheal arthritis from ordinary rheumatism, septic or cerebrospinal meningitis from the tuberculous variety, cerebral abscess from cerebral tumors, obstructed from strangulated hernia and also which has a wide range of usefulness in septic conditions, deserves a more frequent application than has yet been accorded to it.

6. **Tuberculosis.**—Symes and Fisher have investigated a large number of cases of tuberculosis, separating those under twelve years of age from the older cases. They say:

> If we take local foci of disease as evidence of primary disease in the neighborhood of the foci, our statistics tend to show that during the first twelve years of life tuberculous infection by the air passages is almost as common as by the alimentary canal. Our statistics also seem to show that the comparative frequency of infection through the alimentary canal during the second twelve years is equally common. Deaths in hospitals above the age of 12 years can hardly, however, be taken to represent the average causation of death from varieties of tuberculosis for the whole population above that age, because cases of tuberculosis of the lungs are more chronic than at an earlier period of life, and are not usually admitted to ordinary hospitals.

The Lancet, London.

April 23.

13 *The Neurology of Vision. J. Herbert Parsons.
14 *Fractures of the Skull. Louis Bathe Rawlings.
15 *A Chronic Neurosis Characterised by Frequent Paroxysms of Pain, Swelling and Hemorrhage in Various Parts of the Body; Death from Acute Pulmonary Tuberculosis. T. K. Monro and A. N. McGregor.
16 Brachial Neuritis. Charles W. Buckley.
17 Intracranial Resection of the Second Division of the Fifth Nerve for Epileptiform Neuralgia. J. Hutchinson.
18 Notes on a Case of Myelopathic Albuminuria. R. Cathcart Bruce, Kenneth F. Lund and P. Percival Whitcomb.
19 *Treatment of Cancer with Radium Bromid. H. G. Plimmer.
20 The Site of Referred Pain in Visceral Disease from an Embryologic Standpoint. W. M. Willoughby.
21 *So-called Intra-uterine Cretinism and Its Supposed Identity with Endemic and Sporadic Cretinism. H. Bayon.

13. **Neurology of Vision.**—The first of Parson's Arris and Gale lectures is devoted to a description and discussion of the anatomy of the afferent visual tract. The author considers that the layer of rods and cones of the retina and its ganglion cells, together with the optic nerve, are a portion of the central nervous system and traces the fibers back by the usual degenerative experiments and clinico-pathologic facts through the optic tracts to the external lateral geniculate body and from this to the region around the calcarine fissure in the occipital lobe of the brain.

14. **Fractures of the Skull.**—Rawling's second lecture treats of hemorrhages; first, the external ones in the ear, nose and orbital region. Aural hemorrhage occurs with a great majority of fractures involving the middle fossæ of the skull, including the region of the external auditory meatus. He thinks too much stress is laid on the fact that hemorrhage from the ear may result from other causes than fracture and regards this symptom when secondary to a blow on the head as diagnostic of this particular fracture of the middle fossa. In some few cases hemorrhage occurs from both ears, the fracture running from one side to the other. The prognosis of these cases is necessarily grave, but the vitality of young adults enables them to recover often even under very unfavorable circumstances. Hemorrhage of the nasal cavities is one of the most constant symptoms in fractures of the base occurring in nearly all fractures involving the anterior or middle fossæ. The postmortem lesions are comminuted fracture of the cribriform plate of the ethmoid and of the sphenoidal body. Hemorrhage into the orbital region is described in detail, noticing the subconjunctival and palpebral hemorrhages which, when they occur, usually accompany complications in the orbital region. Proptosis, when immediate and severe, usually indicates a severe fracture in the region of the sphenoidal fissure and cavernous sinus, and when moderate and appearing after a few hours, implies fracture involving the orbital walls with blood derived from lacerated ophthalmic vessels. Third, when appearing days or weeks after the injury and usually steadily progressive, it occurs from fracture involving the cavernous sinus with injury to the internal carotid artery and the formation of fistulous communication between the sinus and the artery. Hemorrhage into the mastoid and occipital region is also mentioned and orbital aneurism, which is usually due to injury to the internal carotid from fracture, traveling along the anterior border of the petrous bone to the cavernous sinus. Internal hemorrhages such as both the extradural and intradural, cortical and intraventricular, are noticed at some little length. Uncomplicated middle meningeal hemorrhage is rare. From his own experience Rawling would put the suggestive symptoms in the following order as to the frequency of occurrence: 1. The appearance of temporal hematoma. 2. Copious and continued hemorrhage from the ear. 3. Twitchings of the facial muscles on the opposite side and twitching or spasm of the muscles of the opposite arm and leg. 4. A brief lucid interval between the states of concussion and collapse. 5. Some alteration in the pupil of the affected side, more commonly the "constricted" pupil. Early trephining is important and the mortality in cases operated on is very much less than in cases left alone. It is better to operate and to find no hemorrhage than to neglect it until too late. He thinks it advisable to tie the external carotid in preference to the common carotid, as the more extensive interference with the blood supply may cause serious cerebral changes. Two cases of severe laceration of the internal carotid are mentioned where death was almost instantaneous. The subarachnoid and subpial regions are also noted, as well as intraventricular hemorrhage, with symptoms similar to those of apoplexy. The escape of cerebrospinal fluid from the ear is so much spoken of in the text-books that it is supposed to be of common occurrence, but that is not Rawling's experience. It does not materially affect the prognosis. Large quantities may be lost without any striking effect, and the danger of infection does not appear to be increased proportionately, as the outflow tends to wash away the micro-organisms present in the external meatus. It is inadvisable in these cases to syringe out the ear, and the meatus should be merely swabbed out with some strong antiseptic. Frequent changing of dressings may be necessary when the discharge is profuse. When the fluid escapes into the nose little can be done to prevent infection. Meningitis is a common result of fracture of the anterior fossæ with this symptom.

15. **A New Chronic Neurosis.**—The title of Monro and McGregor's paper explains the principal symptoms of the case. The authors think the disease is a neurosis allied on the one hand to angioneurotic edema, though on the other presenting points of resemblance to the purpuric type of erythema. They are inclined to consider the hemorrhage as due to a neurosis rather than to an infection. In their case the only treatment that seemed to do much good was counter-irritation in the form of a seton in the back of the neck.

19. **Cancer.**—Plimmer analyzes 17 cases treated with radium bromid and concludes that emanations from this substance can only act on young and rapidly-growing cells and that the older cells, especially if surrounded by fibrous tissue, are less and less easily affected, and, if there is an excess of fibrous tissue, hardly affected at all.

21. **Congenital Cretinism.**—Bayon argues against the occurrence of so-called congenital cretinism. The condition of chondrodystrophia fetalis considered by Virchow as an intrauterine cretinism is, he thinks, quite different. The defect or destruction of thyroid glands produces the true cretinism, causing general arrest of development and myxedema, both of which symptoms are absent in chondrodystrophia fetalis where we find simply short arms and legs, probably following inflammation of the cartilages during intrauterine life.

Australasian Medical Gazette, Sydney.

March 31.

22 Introduction to Modern Theories of Immunity. D. A. Welsh.
23 The Notification of Phthisis. A. Jeffries Turner.
24 Case of Tempero-sphenoidal Abscess of Otitic Origin. A. J. Brady.
25 *Situation of Corpus Luteum in Four Cases of Ectopic Gestation. Ralph Worrall.
26 Remarks on Some Rheumatic Affections. H. Swift.
27 Case of Rheumatic Fever with Chorea. A. H. Gault.
28 Rheumatic Fever. E. E. Morale.
29 Renal Radiotherapy: An Account of 50 Correct Positive Results. L. Herschel Harris.
30 A Further Series of Cases of Perineal Prostatectomy. H. L. Maitland.

25. **Ectopic Gestation.**—Worrall reports four cases of ectopic gestation observed during 1903, in all of which the position of the corpus luteum and the condition of the ovaries were noted. In two there was every evidence that the ovum came from the ovary of the side opposite to that of the gravid tube, the ovaries being cystic or atrophied on that side, while on the other a large fresh corpus luteum was found. In the other two cases the ovum on the gravid side contained no corpus luteum while that in the opposite side contained a large fresh corpus. In one of the cases also the fimbriated end of the tube on the gravid side was occluded.

Semaine Médicale, Paris.

31 (XXIV, No. 15.) La paralysie périodiques familiale. L. Chatelain.
32 Applications locales de glycérolé d'iode contre la conjonctivite granuleuse. F. Jabłkowski. Abstract.
33 Abolition of Fulminating Pains in Tabes After Pasteur Treatment of Dog Bite. L. Stembo.—Le traitement antirabique contre les douleurs fulgurantes des tabétiques. Abstract.

Berliner klinische Wochenschrift.

34 (XLI, No. 14.) Study of Cutaneous Perception of Vibrations of Tuning Fork. Goldscheider.—Ueber das Vibrationsgefühl.
35 *Tardive Leber-Abscesse nach tropischer Dysenterie. P. K. Pel.
36 *Stains in Treatment of Trypanosoma Affections. P. Ehrlich and K. Shiga (Frankfurt a. M.).—Farbentherapeutische Versuche, etc. (Commenced in No. 13.)

35. **Tardy Liver Abscess After Tropical Dysentery.**—Pel relates the particulars of a case which establishes that it is possible for a liver abscess to develop consecutive to tropical dysentery although the subject may have long left the tropics and an interval of twenty years may have elapsed.

36. **Influence of Drugs in Inducing Immunity.**—In this concluding portion of their communication (see page 1190 in last issue of THE JOURNAL) Ehrlich and Shiga state that the benefit derived from trypan red was not so marked with rats and other animals as with mice, and that hundreds of other stains and drugs were tested without success. Further tests to explain its action apparently demonstrate that the trypan red has no direct influence on the parasites, but it induces a reaction in the animal body which entails the destruction of the parasites. The reaction is transient and ceases in a few days as the stain becomes incorporated with the organs. Further experiments showed that the active immunity conferred by the destruction of the parasites by the trypan red lasted for twenty to thirty days and then gradually subsided. The dead trypanoso-

mata killed by the stain evidently induced in turn the formation of immune substances. This reaction ceases as the dead trypanosomata are eliminated and the animals become susceptible anew to fresh infection. Residual parasites lurking in the body are held in check as long as this reaction or active immunity lasts, but as soon as the period of active immunity is past they resume their pathogeneicity. Observation of these facts suggests an explanation for the recurrences in malaria and syphilis. Relapses are due in all these affections to the subsidence of the reaction and the consequent release of lurking residual germs from their latent state. The exact duration of the period of active immunity could easily be determined by the length of time during which repeated inoculation proved inoperative and the moment when it began to cause infection. The above experiments are interesting, further, because they throw light on the therapeutic action of drugs. The trypan red in itself does not kill the trypanosomata, but it induces conditions in the organism which destroy them and lead to active immunity. It is possible, Ehrlich concludes, that a cure by chemical agents may afford conditions more favorable for the realization of immunity than those that follow the use of specific serums. The serums monopolize a certain part of the receptor apparatus of the parasites and this part is thus excluded from active participation in the production of antibodies.

Centralblatt f. Bakteriologie, etc., Jena.

Last indexed page 854.

37 (XXXV, No. 2.) Zur Kenntnis der Sarkosporidien und deren Abwehrmittel. Behrens (Hannover).

38 Inoculation of Animals with Leprosy. W. J. Kedrowski (Moscow).—Experimentelle Erfahrungen über Lepraimpfungen bei Tieren.

39 Beitrage zur Züchtung des Influenza-Bacillus. Fichtner (Leipsic).

40 Culture Medium for Bacilli in Sputa. W. Hesse (Dresden). —Ein neuer elektiver Nährboden für Auswurf-Tuberkel-Bazillen.

41 Sedimentation Tests for Tubercle Bacilli. K. Dilg (Leipzic). —Untersuchungen über die verschiedenen Sedimentierverfahren zum Nachweise von Tuberkel-Bazillen.

42 On the Branching Occasionally Exhibited by *Bacillus diphtheriæ*. S. C. Abbott and N. Gildersleeve.

43 Studien über Morphologie und Biologie des Milzbrand-Bacillus (of anthrax). H. Preiss.

44 Contribution à l'étude, à la classification et à la nomenclature des affections connues sous le nom d'actinomycose. J. Ligniéres and G. Spitz.

45 Streptococcus Toxins. T. B. Simon.—Ueber die Gifte der Strept.

46 Ueber die Aetiologie der Schlaftrankheit (sleeping sickness). A. Bettencourt. A. Kopke. O. de Resende and Correia Mendes (Lisbon). (Concluded.)

47 Yellow Fever and Malaria. L. Bandi.—Gelbfieber und Malaria.

48 Bakterien-Befunde bei der Euterentzündung der Kuh und der Ziege (inflammation of cows' and goats' udders). P. Stelzner.

49 Neue Helminthen. v. Linstow.

50 Action of Certain Ionizable Salts on Lysine in Human Serum. Ludvig Hektoen.—Die Wirkung gewisser ionisirbarer Salze auf die Lysine im menschlichen Serum.

51 Ueber die Anti-Cyto-Präzipitine und über eine allgemeine Form derselben. E. Centanni.

Deutsches Archiv f. klinische Medicin, Berlin.

Last indexed page 885.

52 (LXXIX, Nos. 3-4.) Ueber kontinuierliche Hern-Bigeminie. H. E. Hering (Prague).

53 Influence of Rhodan Compounds on Metabolism. A. Mayer (Freiburg i. Br.).—Einfluss von Rhodan-Verbindungen auf den Stoffwechsel.

54 Amount of Rhodan in Urine and Saliva. Ibid.—Menge des Rhodans im menschlichen Speichel und Harn bei Gesunden und in einigen Krankheiten.

55 Coagulation of Blood. P. Morawitz (Tübingen).—Zur Kenntnis der Blutgerinnung.

56 *Is Experimental Tuberculosis Influenced by Injection of Dog Serum? R. Link (Freiburg i. Br.).—Wird bei Kaninchen und Meerschweinchen experimentell hervorgerufene Tuberkulose durch Injektionen von Hundblutserum beeinflusst?

57 Human Bile in Gall Bladder. T. Kimura (Munich).—Untersuchungen der menschlichen Blasengalle.

58 *Zur Pathologie der Harn-Organe (urinary apparatus). H. Quincke (Kiel).

59 Ueber ein traumatisches Aorten-Aneurysma und traumatische Insuffizienz der Aorten-Klappen. A. Heller (Kiel).

60 Zur Pathologie der Nieren bei den Magendarmerkrankungen des Säuglings (kidneys in nurslings' gastrointestinal affections). M. Hohlfeld (Leipzic).

61 Elimination of Water Through Skin and Lungs. G. Lang (Tübingen).—Beobachtungen über die Wasserausscheidung durch Haut und Lungen unter dem Einfluss des Fiebers und einiger anderer Faktoren.

62 Ueber Angina ulcero-membranosa. A. Gross (Kiel).

56. Dog Serum in Experimental Tuberculosis.—The rabbits and guinea-pigs tolerated perfectly the injection of serum from dogs. The results indicate that appreciable benefit was derived, although the experiments were puzzlingly contradictory in some cases. The research is described in detail.

58. Dangers of Potassium Chlorate in Kidney Disease.—Quincke proclaims that potassium chlorate is liable to exert a direfully toxic action when the urinary excretion is impaired. He describes 2 cases whose fatal outcome corroborates this assertion. The first patient was a man of 57 presenting a moderate catarrh of the bladder which was unusually irritable. Potassium chlorate in doses of .75 gm. a day produced no effect, and the amount was increased to 4 gm. a day. In twenty-four hours symptoms of intoxication developed, but were not recognized as such until after another 4 gm. had been taken. The patient died seven days later. Whether death was due to the drug or to the long-continued uræmia from the undiagnosed cystic degeneration found in the kidneys, is an open question. In a second case a patient had suffered for years from prostatic retention. Its cause had been unrecognized, as the prostate was normal on the side toward the rectum, and the protuberance causing the obstruction acted like a valve, closing the lumen of the urethra, although it offered no resistance to the passage of a catheter. Pyelonephritis had developed from catheter infection, but the case became severe only after potassium chlorate had been commenced, the dose not exceeding 3 gm. a day, kept up for five days. Death occurred one day after its suspension, the symptoms, vomiting, weakness and coma, with slight icterus, brown urine and marked polycholia noted postmortem. To detect these deceptive valve protuberances in the prostate Quincke now uses a large catheter with a notch cut out fully 1 to 1.5 cm. long and 1 to 2 mm. deep. This catches any protuberance and reveals its presence. He adds another case of cystic degeneration of the kidney which remained undiagnosed during life. A tendency to neurasthenia was increased by gout and hypertrophy and degeneration of the kidney. The congenitally abnormal kidneys became incompetent and chronic uræmia developed, with pruritus and dyspnœa. The kidneys of this patient's sister were found in a similar condition. In still another case a hydronephrosis of a single kidney escaped diagnosis. Flakes of fibrin were found in the urine, similar to what he has transiently observed in 4 or 5 cases of contracted kidney.

Deutsche medicinische Wochenschrift, Berlin and Leipzic.

63 (XXX, No. 14.) *New Route to Rear of Right Lobe of Liver. J. Israel.—Ein neuer Weg zur Freilegung der Hinterfläche des rechten Leberlappens.

64 *Zur Behandlung des Myoma uteri. J. Pfannenstiel (Giessen).

65 *Zur Biologie der Tumoren. E. Saul.

66 Origin of Mixed Tumors. R. Lewinsohn.—Zur Entstehung der Mischgeschwülste. (Commenced in No. 13.)

67 Vorkommen von freien Amino-Säuren (Leucin, Tyrosin, Lysin) im Blute bei akuter Leber-Atrophie. C. Neuberg and F. F. Richter.

68 Vorkommen der Dupuytrenschen Finger-Kontraktur bei Diabetes mellitus. P. Teschemacher.

69 *Zur Behandlung der akuten Otitis media. II Teil. G. Heine.

70 Zur Genese der Mast-Zellen der Haut (of skin). J. Heller.

71 Wirkung der sinusoidalen Wechselstrombäder auf die Circulations-Organe (alternating currents baths). F. C. Franze (Nauheim).

72 Die Biedert-Beltzersche Buttermilch-Konserve. E. Kobrak.

73 *Obstetrics in Homes of Wage-Earners. F. Frank (Cologne). —Die Geburtshilfe in der Wohnung des Proletariats.

74 (No. 15.) Ankylosis of Jaw Cured by Wedge Excision in Left Ramus. F. König.—Ankylose der Kiefergelenke beseitigt durch Keilausschnitt aus dem linken Kieferast.

75 Intratheracal Operations in Pneumatic Chamber. J. v. Mikulicz.—Ueber Operationen in der Brusthöhle mit Hilfe der Saugerschen Kammer. (Continued.) See page 1192.

76 Ueber den operativen Verschluss von Lungen-Fisteln. C. Garré.

77 Chromo-Cystoskopie. F. Voelcker and E. Joseph (Czerny's clinic, Heidelberg). (Continued.)

78 *Decapsulation of Kidney. Thelemann.—Ueber die Entkapselung der Niere.

79 *Zur Statistik der Mamma-Carcinome. P. Schmidt.

80 *Exophthalmopexie nach Kocher bei Enukleation von Myomen und als Prolaps-Behandlung. J. Lauper and T. Kocher (Berne).

81 *Filling for Bone Cavities. A. Brüning (Giessen).—Ueber Knochen-Plombierung.

82 Extensive Transplantation of Skin by Thiersch Grafts. H. Hoberer (Vienna).—Einige Fälle von ausgedehnter Hauttransplantation nach Thiersch.

83 *Pain-Soothing Properties of Alcohol Compresses. O. Amrein. —Zur Anwendung der Alkoholverbände.

84 *Sanaform for Dressing Wounds. F. Burchard (Berlin).—Sanaform als Wundheilmittel.

85 Simple Pocket Apparatus for Endoscopy, Examination and Treatment of Rectum, etc. C. Bonnenkalb (Leipzic).—Zur Untersuchung und Behandlung des erkrankten Mastdarms. Polyendoskop.

63. **New Route to Rear Surface of Right Lobe of Liver.**—Israel's patient presented a clinical picture suggesting tuberculosis of the right kidney, but the pain on pressure of the lumbar region could be explained only by assuming that the kidney pressed on some diseased organ below. Israel, therefore, made an incision from the rear and pushed the kidney aside, after resection of the twelfth rib. The kidney was mobilized by slitting the capsule and mobilizing the pedicle, pushing the organ aside as if it were a naturally wandering kidney. This exposed the rear aspect of the right lobe of the liver, where a tumor was found and removed, followed by iodoformglycerin injections through a tube left for the purpose, and iodids internally. Recovery was rapid. The tumor proved to be a gumma, but the question as to the advisability of surgical intervention in such a case does not alter the advantages of this mode of reaching this part of the liver. It is indispensable that the pedicle of the kidney should be long and elastic enough to permit of pushing the organ aside out of the way.

64. **Treatment of Myoma of Uterus.**—Pfannenstiel emphasizes the necessity of strict individualization in treatment of myoma. The primary prognosis of myotomy would then reach that to which we are accustomed for ovariotomy. Including the unfavorable cases the mortality for both is about 4 to 5 per cent. We are justified in extending the indications for operative treatment of myomata beyond what has been hitherto accepted, and operate on them earlier than has hitherto been deemed advisable. Unless certain that the fundus and cervix are aseptic the vaginal route is preferable. He does not advise abdominal total extirpation except for malignant complications or extremely large size or large infected growths. He thinks it is of the utmost importance to retain the ovarian function before the menopause. The best time for operative intervention is the postmenstrual period. He recommends ablation of all rapidly growing tumors for fear of sarcomatous transformation, of all complicated cases, of deep-seated, eccentrically developing myomata on account of the danger of compression of the urethra or veins, of submucous myomata, and, in short, of all causing disturbances of any kind.

65. **Biology of Tumors.**—In this communication from Olshausen's clinic Saul illustrates the findings in researches undertaken to study the formations found in tumors which some regard as elements of the growth and others as parasites. Five illustrations of the various elements suggesting parasites are given and their history traced. He agrees with Ribbert in denying their parasitic nature.

69. **Treatment of Otitis Media.**—Heine reviews the various methods of treating affections of the middle ear at present in vogue, and in particular those employed at Lucae's clinic in Berlin. Simplicity is the rule there, the aim being to rest the injured, inflamed organ and provide ample outlet for the secretions, as he describes in detail.

73. **Obstetrics in the Homes of the Poor.**—Frank argues to prove that the family and home are the bulwarks of the state, and that if the husband wishes to keep his wife at home during her confinement and she wishes it also, it is the duty of society to render it possible and safe. By the co-operation of physicians with the undergraduates of the training schools for midwives and the charitable organizations, it has been possible to conduct 4,354 childbirths in the homes of wage-earners in his city, Cologne, with temperature in only 7.14 per cent. of the cases. The total includes 45 twin and 2 triplet births. Forceps had to be applied in 2.2 per cent. of all cases, and placenta previa occurred in 11 instances. The placenta had to be manually removed in 67 cases, and there was prolapse of the cord in 24 and laceration of the perineum in 137 instances. There were only 6 deaths and 3 were due to progressive eclampsia or peritonitis after laceration in case of deformed pelvis or to hemorrhage from rupture of an old cicatrix in the cervix. The three other deaths might have been prevented if a physician or midwife could have been found in time—the husband was unable to find either until too late by several hours. Frank thinks that this remarkably fine showing confirms the feasibility of home confinements even for the very poor, and hopes to see the present arrangements at Cologne perfected by the establishment of some central office where the undergraduate midwives or physician can always be procured, day or night, under the supervision of some experienced obstetrician. The services of the midwife must be remunerated—at a minimum rate of $4. Charitable organizations must assume the task of supplying suitable food and bedding and keeping the household going, while medicines, dressings and disinfectants should be supplied free by the municipal hospital administration.

78. **Experimental Decapsulation of Kidney.**—Thelemann reports extensive research on dogs which has established that the new capsule forms from the relics of the old and the septa penetrating the parenchyma. The decapsulation has no unfavorable action on the renal parenchyma, but neither is it more than transiently beneficial. He was unable to discover any increased formation of blood vessels. Merely the former anatomic conditions were reproduced, and consequently he doubts whether the procedure can be of permanent benefit to man. He thinks that the clinical results published to date are not free from objections. The severe cases operated on by Edebohls have died; the milder cases have improved and some of them have completely recovered. It is still an open question whether they would not have recovered equally well without the operation. The chloroform narcosis is also a disadvantage that must be taken into account.

79. **Statistics of Mammary Cancer.**—Schmidt states that at the Göttingen clinic 211 patients with cancer of the breast have been operated on. Of this number news has been received of 109 after an interval of at least three years. In 77 cases there has been recurrence, and 32 of the patients have been permanently cured, with intervals as long as ten and fifteen years in some instances. This gives a proportion of 28.32 per cent. of cures.

80. **Extraperitoneal Transplantation of Uterus After Enucleation of Myomata and as Treatment for Prolapse.**—The motives for this new mode of surgical intervention are enumerated by Kocher as follows: 1, possibility of immediate, direct visual inspection, rendering control of any after-bleeding much easier and more effectual; 2, the greater certainty of an aseptic healing, and the lesser danger of complications on return of menstruation; 3, the operation is rendered much easier, and 4, the procedure is certain and entails the minimum of mutilation in old inveterate prolapse with the simplest of interventions. A further advantage is the relief of pressure and dragging on the intestines, and the favorable influence on the frequent obstinate constipation. The operation has been performed in 5 cases after enucleation of myomata through the abdomen and also in 3 cases of prolapse of the uterus. The menses recur regularly, less profuse but without disturbances of any kind. The remote results of the operation have been in every instance highly satisfactory. The technic of this exohysteropexy, as Kocher has named it, is for prolapse a median incision in the Trendelenburg position. After the fascia and peritoneum have been slit the uterus is pushed up from below and is seized and pulled out through the wound. The peritoneum behind it is then sutured above and a short distance below the uterus, thus leaving the latter almost entirely outside the peritoneum while the ovaries remain inside the abdominal cavity. The suture in the peritoneum must be divided above and below the uterus in such a way as not to interfere with the expansion of the bladder. Towards the sides the parietal peritoneum is fastened to the body of the uterus with a few button stitches. After which the fascia is drawn together over the uterus its entire length and closed with a continuous suture. If there is no oozing of blood drainage may be dispensed with, but otherwise a drain tube may be introduced above and below the uterus down to the peritoneum (thin narrow glass drains are preferable). The operation concludes with a continuous suture of the skin and xeroform gauze and collodium dressing. The intervention varies somewhat from this technic in case of fibromyoma operations. After enucleation or excision of the tumor and suture of its bed in tiers, covering it over with serosa, the body of the uterus (or the stump left), is drawn vigorously for-

ward into the abdominal wound and the parietal peritoneum is sutured above and below behind it with a continuous suture. The button sutures are also applied on each side as by the preceding technic, including the parietal peritoneum and the serosa of the uterus. The fascia may be included also in this suture to insure hemostasis, thus bringing the body of the uterus directly under the skin. This was done in some cases while in others the fascia were allowed to close over the fundus uteri with the exception of a small spot (the size of a five-franc piece) through which a tampon was inserted down to the peritoneum. The incision in the skin was then closed with a continuous or button suture with dressing as above. Even in these cases it is possible to suture the fascia over the body of the uterus, thus obviating any secondary hernia. The simplicity, ease and solidity afforded are strong arguments in favor of this new operation. The uterus in time is liable to gradually subside back into normal position. In the first 2 cases sufficient play was not left for the bladder and consequently there was slight, transient disturbance consisting in increased desire to urinate. This was avoided by fastening the uterus a little higher up. No subjective disturbances of any kind nor abnormal sensations were noted in any instance. Menstruation recurred regularly, although less profuse than before and there was no discharge after the operation. The results of the intervention were in every instance highly satisfactory, as confirmed by later examination. The operation was first performed in February, 1902, and all but 2 of the patients were operated on in that year, the others in February and April, 1903. This article has been ready for publication for nearly a year, but Kocher has waited for the remote results. The only possible objection to this operation is pregnancy later. If it should occur—which is seldom observed after a myomectomy—it would be very easy to enlarge the opening enough to release the uterus. No damage has been done to its nerves or blood vessels by the exohysteropexy, and there has been no occasion for the formation of adhesions. It thus avoids all the drawbacks of ventrofixation.

81. Filling Bone Cavities.—Brüning describes the history of bone plugging or filling—to use the dentists' phrase—and states that Merrem in Giessen was the first to reimplant fragments of bone. Of all the various technics he prefers that of Mosetig, described in these columns, xl, pp. 881 and 1544. It shortens materially the time of treatment, patients leaving the clinic, able to use the leg, two to three weeks after removal of a sequester from the tibia. Unfortunately the method can not be applied unless the cavity can be completely smoothed and cleaned, which is not always the case.

83. Alcohol Compresses for Relief of Pain.—Amrein describes the remarkable relief afforded by local application of alcohol in appendicitis and spondylitis tuberculosa, as also the rapid retrogression of inflammatory processes under alcohol compresses.

84. Sanoform as Dressing for Wounds.—Burchard lauds sanoform as at least fully equal to iodoform in every respect while free from all the disagreeable properties of the latter.

Mitteilungen a. d. Grenzgebieten, Jena.

Last indexed page 1112.

86 (XIII, No. 1.) *Improved Study of Pathologic Anatomy. E. Ponfick (Breslau).—Ueber neue Aufgaben des path.-anat. Unterrichtes an der Hand holoptischer Betrachtungsweise, zugleich ein Beitrag zur Pneumatose-Lehre.

87 *Operative Grafts of Echinococcus Cysts. O. Madelung (Strasburg).—Ueber post-operative Propfung von Echinokokkencysten.

88 *Acute Dilatation of Heart Consecutive to Trauma Bending Trunk Forward. T. L. v. Criegern.—Ueber Schädigungen des Herzens durch eine bestimmte Art von indirekter Gewalt (Zusammenknickung des Rumpfes über seine Vorderfläche).

89 *Case of Head Tetanus. J. Grober (Jena).—Fall von Kopftetanus (E. Rose).

90 *Weitere Beiträge zur Lehre der Skoliose nach Ischias. H. Ehret (Strassburg).

91 *Ueber tropische Leber-Abscesse. J. A. Koch (Java). Sixteen cases.

86. Holoptic Method of Studying Anatomy.—Ponfick thinks that the study of pathologic anatomy should proceed on broader lines than those hitherto adopted, and should aim to discover more than the one organ involved in the disease process. Its manifold relations to the neighboring parts should be systematically studied before the organ is taken out for closer examination. He calls this the holoptic method as opposed to the current metoptic, that is, inspection of the whole instead of a part. After the cadaver is frozen it is possible to make a "frontal" section which will expose the conditions induced by a left pneumothorax, for instance, the section leaving the lung intact, and the accumulations of gases and fluids still *in situ*. He gives an example of this kind in a colored plate, and points out a number of new points that can be learned from this general oversight of the conditions, both the direct and indirect results of the lesion.

87. Operative Grafts of Echinococcus Cysts.—Madelung describes a case in which there was recurrence of the cysts two years after extirpation. The circumstances showed that the recurrences were due to scraps grafted into the abdominal cicatrix. As a preventive measure he endorses Dévé's proposal to inject an equal amount of some fluid to kill the parasites after evacuation of the cyst contents by puncture. It should be given plenty of time to exert its destructive action, and then it should be siphoned out and the sac extirpated as usual.

88. Injury of Heart from Violent Bending Forward of Trunk.—In the 2 cases described the trunk was bent stooping forward by a traumatism. In one the woman fell over backward, turning a somersault. There were no signs of direct injury of the heart region, but symptoms of acute dilatation of the heart followed. In one case there was soon complete restitution, but in the other and in a third case myocarditis ensued. The findings parallel those of acute dilatation from overexertion, but differ as the dilatation is due not to increased arterial pressure, but to compression of the air in the thorax by the obstruction to the outflow of the venous blood. The details of a case of acute dilatation in consequence of muscular over-exertion are given for comparison of the two conditions.

89. Head Tetanus.—Grober's experience of tetanus includes 13 cases, and indicates that the longer the incubation the milder the course. In the case of head tetanus the patient was a man of 46 who had at one time been subject to epileptic seizures. The tetanus followed an injury of the brow, and was complicated by paralysis of the facial nerve, which persisted after recovery from the tetanus. The benefit of antitetanus serum was marked in this and the other cases. Grober believes in giving as much of it and as often as possible.

90. Scoliosis Consecutive to Sciatica.—Ehret presents further arguments and illustrative cases to sustain his theory that the scoliosis observed after sciatica is due to the position of the leg maintained by the patient in order to relieve the pain, with compensation on the part of the spine to render it more comfortable. In all cases of sciatica, therefore, attention should be paid to the spine and a fixation cast applied in rebellious cases in the endeavor to prevent spinal deformity later. The water-glass cast should extend from the toes to the hip, and keep the limb in the primary, not compensated, "self-relief" position. He has been able by this means to ward off impending scoliosis in 14 cases. When the self-relief position is only slight it can be maintained with cushions and compensation on the part of the spine thus be avoided. He keeps the cast on for ten to twenty-one days. When the scoliosis is once established from sciatica—even long past—much benefit can be derived from permanently raising the height of the sole on the affected side. With an inner sole 3 cm. thick, he succeeded in eighteen months in completely curing a pronounced scoliosis left from a sciatica nearly five years before. The particulars of 5 cases are given in detail, the patients 28 to 46 years old, with diagrams to show the mechanism of the developing scoliosis.

91. Liver Abscess.—Koch analyzes his experience with 16 cases, pointing out the differentiating points and urging prompter surgical intervention.

Münchener medicinische Wochenschrift, Munich.

92 (LI, No. 13.) The Simplest Albuminoids and Their Fermentative Splitting. A. Kossel and H. D. Dakin.—Ueber die einfachsten Eiweissstoffe und ihre fermentative Spaltung.

93 Isolation in Treatment of the Insane. Dieckhoff.—Anwendung der Isolirung bei der Behandlung Geisteskranker.

94 *Relations Between Larynx and Pulmonary Tuberculosis. Fraenkel.—Beziehungen zwischen Kehlkopf und Lungentuberkulose.

95 *Senile Osteomalacia. Schiffmacher.
96 *New Method of Testing Therapeutic Measures in Affections of Spinal Cord. T. Büdingen.—Eine neue Methode zur Prüfung therap. Massnahmen bei Rückenmarkskrankheiten.
97 Improved Mixer for Blood Count. G. Galli (Rome).—Ein verbesserter Mischer zur Zählung der Blutkörperchen.
98 *Zur Injektions-Therapie der Gonorrhoe. R. Lucke.
99 *Zur Malaria-Frage. A. Forel (Zurich).
100 Measurement of Pressure in Veins. A. Frey (Baden-Baden).—Ueber Venendruckmessung. Reply to Gaertner.
101 Titration of Stomach Content. R. Chajes (Senator's clinic, Berlin).—Zur Titration des Mageninhalts bei Anwendung verschiedener Indikatoren.
102 *Ueber das Tonometer. G. Gaertner (Vienna). (Commenced in No. 12.)
103 The Trance Dancer. L. Loewenfeld.—In Sachen der Schlaftänzerin. Ibid. L. Grünwald. See news column, page 1053.
104 (No. 14.) *Anesthesia of Spinal Cord. August Bier and A. Dönitz (Bonn).—Rückenmarksanesthesie.
105 Wie entstehen die ersten krankhaften Veränderungen des Wurmfortsatzes bei Appendicitis? C. Lauenstein.
106 *Recent Research in Radiology. L. Gräetz.—Ueber neue Strahlungsforschungen (Becquerelstrahlen und a Strahlen).
107 *Remote Results of My Last 500 Gallstone Laparotomies. H. Kehr (Halle-a-S.).—Die Dauerresultate meiner letzten 500 Gallensteinlaparotomien (400-900 Operation).
108 3 Fällen von primärer Inkarseration des Appendix vermiformis. K. Staatsmann.
109 *Ueber prophylaktische Sterilisierung der Frau. H. Cramer (Bonn).
110 *Methylene Blue in Diagnosis of Affections of Urinary Passages. M. Fischer (Bonn).—Ueber den Gebrauch des Methylenblau zur Diagnose der Erkrankungen der Harnwege.
111 *Phototherapy After Sensibilization. L. Halberstaedter (Neisser's clinic, Breslau).—Mitteilungen über Lichtbehandlung nach Dreyer. Zur Theorie der Sensibilisierung und Prüfung einiger Sensibilisatore.
112 Amputation der hypertrophischen Gaumen-Tonsille mit der kalten Schlinge. Henrici.
113 Transplantation of a Muscle to Close Defects in Abdominal Wall. S. F. Crish (Moscow).—Ueberpflanzung eines Muskels zur Deckung, etc.
114 Diet nach Magen und Darm-Operationen. F. Ehrlich (Stettin).
115 Combinierte Aether-Chloroform-Narkose mit der Sudeckschen Aether-Maske. Max Madlener.
116 *Fall von ausgedehnter Phlegmone, verursacht durch subkutane Injektion einer Kokain-Adrenalin-Lösung bei einem 70 jährigen Manne. Aronheim (Gevelsberg).
117 Improved Electric Light for Medical Examinations. Mulert (Plauen i. V.).—Zur Verbesserung des elektrischen Lichts, etc.
118 Substitution of Carbonic Acid for Ice and Salt-Freezing Mixture in Determining Freezing Point of Urine, Blood, etc. F. Schlagintweit (Munich).—Apparat zur Gefrierpunktsbestimmung des Harnes, etc., mit schneeförmiger Kohlensäure als Kältespender.
119 *Zur Klinik und Therapie des malignen Oedems. G. Lotheisen (Vienna). (Commenced in No. 13.)

94. The Larynx and Pulmonary Tuberculosis.—Fresse reports from von Mering's clinic at Halle the results of inoculation of the larynx in dogs with human tuberculous sputum rubbed directly on the larynx wall. The dogs proved unusually refractory to infection with human tuberculosis, but it was possible to induce in this way a tuberculous affection of the larynx. The findings have convinced Fresse that laryngeal tuberculosis must be generally of sputogenic origin. The sites where it located in the dog corresponded exactly with what is observed in man, and show that the movements of the vocal cord press the sputum material into the mucosa of the larynx. The parts protected by ciliated epithelium and by the secretion of its glands usually escape unless some injury favors infection.

95. Senile Osteomalacia.—At the necropsy of the case described by Schiffmacher the skull cut like cork or rubber, and the ribs could be bent in any direction. The subject was a woman of 67 who had manifested signs of senile osteomalacia during the last ten years of life. The diagnosis was confirmed by the softness and misshapen aspect of the bones and the development of much osteoid tissue free from lime. Such cases coincide in every respect with other cases of non-puerperal osteomalacia, and a sharp distinction should be drawn between them and ordinary osteoporosis.

96. Means of Testing Therapeutic Measures in Cord Affections.—Büdingen gives an illustration of an apparatus which he calls a reflexometer. The subject sits in a very high chair and the knee-jerk is elicited by a mechanism which graphically registers the response. In this way the benefit derived from treatment may be ascertained from time to time, and functional be distinguished from organic affections. The apparatus has established that the reflexes are unaffected by galvanism, showing that the galvanic current passing through the spinal cord has no stimulating effect on it.

98. Injection Treatment of Gonorrhea.—Lucke's experience has shown that persons who develop posterior urethritis during the first fourteen days after gonorrheal infection are almost exclusively cases of repeated infection, while those infected for the first time do not begin to show traces of posterior involvement until after the third week. It is necessary, therefore, in treatment to distinguish between the first and multiple infection. The sphincter urethræ externus in cases of repeated infection is liable to become more or less impaired and incompetent. For this reason he thinks that these cases should not be treated with injections under pressure and long retention of the fluid. The same applies also to cases of first infection after the third week.

99. To Ward Off or Destroy Mosquitoes.—Forel writes feelingly on the subject of the necessity of protection against mosquitoes since a trip to tropical regions a few years ago. He suggests the feasibility of sending some physician to a region infested with anopheles—avoiding malarial regions—and have him test on his own person various kinds of drugs and substances until he discovers one that will kill or drive away mosquitoes while harmless to the bearer. He suggests that the investigator might expose one arm smeared with the substance to be tested, while the rest of his body was protected by a mosquito net. It might be possible in this way to discover some substance which would drive away mosquitoes entirely from persons carrying it. He refers to the fact which he has himself corroborated that certain ants can eat large quantities of arsenic with impunity while flies rapidly die after eating a small amount. He also refers to the fact that the myrmicinæ, a kind of ant, lose their powers of smell after their haunts have been strewed with sublimate, and they then turn and rend each other, the members of a single colony thus exterminating each other, the same as when the tips of their antennæ are cut off. He thinks that it may be possible by some similar action on the mosquito's sense of smell to make him keep his distance from man.

102. Gaertner's Tonometer.—A description of this instrument was given in THE JOURNAL, xxxiv, page 415. Gaertner here passes in review all the articles that have been published in regard to experiences with it in the hands of others as well as his own—a total of nearly forty-three articles. His final verdict is to the same effect as his earlier announcements, namely, that the tonometer shows up well the variations in the arterial tension, and is a convenient instrument, thus establishing its value for clinical medicine. Thanks to these properties it is entering into general use with uncommon rapidity.

104. Anesthesia of the Spinal Cord.—Bier, the rediscoverer of spinal anesthesia, protests against this name and reiterates that it is strictly an anesthesia of the spinal cord. He always protested against its general adoption, claiming that the procedure was still in the experimental stage and liable to prove dangerous. He now announces that the introduction of the suprarenal preparations has placed it on a safe basis. Their use renders it possible to insure strict localization of the cocain at the point where its action is desired. Dönitz first established that adrenalin injected into the lumbar sac is tolerated by small animals even in amazingly large amounts. It was then applied in the clinic in cases in which general anesthesia was contraindicated, if the patients expressed a willingness for its use. A total of 121 patients have thus been submitted to suprarenin or adrenalin-cocainization of the spinal cord. The patients' ages ranged from 16 to 80; all but 22 were men. Adrenalin was used in 56 cases and in 5 instances no anesthesia was induced, while suprarenin failed 6 times in the 65 cases in which it was used. The patients were all extremely debilitated or suffering from serious affections which contraindicated general anesthesia. Not a single mishap occurred in any instance. The anesthesia did not extend so high as when cocain is used alone, which further demonstrates its localization. It was necessary to make the injection higher up when the operation was above the buttocks region, between the second and third lumbar vertebræ. The anesthesia extends higher up when the pelvis is raised a little.

but caution is necessary when this is done, and further experience to determine the safe limits. It has been found possible to induce anesthesia in dogs over the entire body, including the head, with lumbar cocainization. Bier has the patient lie on the table, the upper part of the body raised, the spine curved, humping outward. A line drawn to connect the two crests of the ilium crosses the fourth vertebra. The forefinger is then carried from its spinous process to the process above and beyond it until it is in the interspace above, between the second and third lumbar vertebræ. The needle is then introduced into this interspace on the convex side of the spine, the side toward the table, and about 1 cm. to one side of the finger. The needle is readily pushed up and in. The injection is not made until the cerebrospinal fluid appears. If it spurts in a jet it is advisable to allow a few c.c. to escape. The syringe is then attached to the needle and the adrenalin or suprarenin injected. The syringe left attached to the needle closes the opening. After waiting for five minutes to allow the suprarenin or adrenalin to get in its work, the cocain is injected from a second syringe. In ten minutes the patient is ready for the operation. The whole procedure is very simple, much more so than general narcosis. It can be done by an assistant in the anteroom and during the fifteen minutes of waiting he can be preparing the field for the operation. The Quincke needle is used, with two well-fitting syringes. The solutions are made as follows: .5 c.c. of the Höchst 1:1000 solution of suprarenin is mixed with an equal amount of physiologic salt solution and boiled up briefly before use. The whole amount is then injected. The cocain is prepared by dissolving .1 gm. in 10 c.c. of sterile physiologic salt solution. The amount of the solution needed for the day is sterilized by boiling. From .005 to .02 gm. of cocain in a 1 per cent. solution is the dose. Alkalies precipitate the cocain base in the needle, and consequently the syringes must not be boiled in soda water, but in pure water. The needles are boiled in a soda solution, kept in alcohol and syringed through with saline just before they are used. The physiologic salt solution is preferred by Bier, as he could not discover any advantages from solutions isotonic for the cerebrospinal fluid. He thinks that failures to obtain anesthesia may be avoided by using fresh solutions of cocain and not injecting the fluid until the cerebrospinal fluid is dropping rapidly from the needle. The needles must not be too long, and the tips should not be slanting, as in the latter case the cerebrospinal fluid might flow out through it while only part of the tip was in the sac, and injection of the cocain might distribute some of it through the neighboring tissues. Of course the dose of cocain must be sufficiently large. On the whole, Bier proclaims that by the new technic the real dangers of spinal anesthesia are obviated. It is extremely important, moreover, that elderly and debilitated subjects tolerate the procedure remarkably well. It is further remarkable that elderly subjects very seldom exhibit any of the disagreeable by-effects. Bier has derived the impression from his experience that these by-effects are on the whole much reduced by the addition of suprarenin or adrenalin, but they are still bad enough. In 27 out of the 56 cases in which adrenalin was used he observed an outbreak of sweat, vomiting and tremor of the muscles during the anesthesia and afterward, as the most regular and distressing phenomenon, headache with sometimes vomiting. The remaining 29 were entirely free from these by-effects. Sometimes the headaches were very intense and persisted a week. Slight rise of temperature was frequently noticed, but never the high degrees and chill noted with the older technic. In a few cases there were transient retention of urine and stiff neck, the former possibly due to the surgical intervention on the pelvis. The same by-effects were noted with suprarenin, with the difference that the symptoms of irritation, retention of urine and rigidity of the back of the neck were rare and slighter. A swiftly transient paralysis of both peronei was noticed in one case. Bier is convinced that the suprarenal preparations act as antagonists to the dangerous action of cocain in spinal cord anesthesia. The list of cases in which he has applied the combination includes 9 cases of amputation and resection of the rectum according to Kraske; 8 of amputation above or below the knee; 1 of Edebohls' decapsulation of the kidney (bilateral); 3 of resection of the hip joint; 11 operations for hemorrhoids and 1 of prostatectomy. Those of the patients who had previously undergone general anesthesia were asked as to which technic they preferred and the majority decidedly favored the spinal cocainization, while others preferred general anesthesia, and one patient declared they were both equally horrible.

108. Doubts of Existence of N Rays.—Graetz states in the course of this review of recent research on the Röntgen and radium rays and the N rays, that the existence of the latter has not been corroborated by any observers in Germany. He rather doubts their actual existence, as he spent a two weeks' vacation in endeavors to elicit and detect them to no avail. The brightening of the luminosity of faintly luminous bodies is a subjective phenomenon which may be due to other causes than an actual heightening of the luminosity. Lummer has recently pointed out a source of error in this connection. He showed that the visual impression of a faintly luminous body depends on the alternating supremacy of the rods and cones in the retina. The fovea with which we see directly consists solely of cones, while the peripheral portion of the retina contains both cones and rods. The rods do not distinguish colors, but their sensitiveness to light is greater than that of the cones which are sensitive to colors. Consequently, in a dark room we see the faintly luminous small body at first with the rods, peripherally. When we fix the spot at which we are looking, and thus look at it with the cones, there is less perception of light as the cones, with which we then are seeing, are not sensitive to light. With a stronger but still dim light we will see more luminosity peripherally than central. Blondlot noticed that whenever the hand or a piece of lead is interposed between the source of the N rays and the faintly luminous reacting body, that the latter became darker. This is due to the fact that in so doing he unconsciously fixed the reacting body and thus it appeared less luminous, while as soon as the axis of the eye ceased to bear on it directly, the luminosity of the reacting body was appreciated once more at its true value. Graetz admits that this explanation does not cover all the phenomena which have been reported in regard to the N rays, but adds that as long as they can not be reproduced by other observers they can not be ranked as an acquisition to science.

107. Remote Results of 500 Gallstone Operations.—Kehr announced two years ago that he had found as the remote results of a series of 400 laparotomies for gallstones that stones had been left behind in 4 per cent. of the total number; hernia had developed in 7 per cent.; adhesion colics had been noted in 11 per cent. and inflammation colic in 6 per cent. The results in a later series of 500 similar operations have been considerably better. Seventy-two out of 450 died in the clinic, but in only 3 instances could the gallstone operation be incriminated in the fatal termination. Since leaving the clinic 21 have died, mostly from cancer. Of the remaining 357 he received answers from 350 to the question blank he sent out. He found that stones had been left behind in 9 cases, that is, in 2.5 per cent. In 5 of these cases he had intentionally refrained from further search on account of certain prohibiting circumstances. In the 4 cases in which the stones had been inadvertently left they were always in the common bile or hepaticus duct. In 3 of these cases the stones have since been passed and the patients seem permanently cured. Once he performed a second operation for the removal of a stone. He proclaims with emphasis that in his entire series of 900 operations he has never encountered a regrowth of stones. Out of the 350 subjects one has still a mucus and one a bile fistula. In the first case the stone was left knowingly in the cystic duct on account of the great depth of the latter. The bile fistula occurred after drainage of the hepaticus, the patient leaving the clinic before Kehr was satisfied that the bile duct was entirely free. Hernia has occurred in 3 per cent., and only in the cases of severe suppuration requiring extensive tamponing, with return to hard labor soon afterward. Adhesion colics have been noted in 12, and inflammation colics in

5 instances—a total of 5 per cent. In 11 of these 17 there had been previous major abdominal operations so that he does not know to which to attribute the adhesions or inflammations. In 3 the colics were traced later to stones in the kidney. Hence we see that 89 per cent. of the 350 are completely freed from all disturbances and only 11 per cent. have anything to complain of. His question blank contains the following questions:

1. What is your present health?
2. Have you ever had colics since as before the operation? Or pains in intestines or stomach? How often, since when? Where were the pains located? Please describe them exactly.
3. Have you a fistula in the scar (a) mucus fistula, (b) bile fistula? Does this fistula disturb you?
4. Have you ever had icterus, if so, how long and with or without pains?
5. Have you hernia in the scar? Is the scar hard or soft, does it protrude when you cough? Have you any discomfort from it and what? Do you wear a truss, and what kind?
6. Have any stones passed since the operation? How large, how often? (Please send me the stones if you have them on hand.) What did they look like? Did the physician recognize them as gallstones?
7. What other remarks have you to make? (Work, digestion, increase in weight, childbirths, etc.)
8. As I regard the opinion of your physician as of great importance I would be grateful to him if he would express here his opinion.

109. Prophylactic Sterilization of Women.—Cramer critically reviews the various methods of insuring sterility and expresses decided preference for steam cauterization of the uterus as by far the simplest and easiest. He has applied it in 5 cases, as he describes in detail, and the results have been the complete involution of the uterus with no further menstruation in some and slight menstruation in others, with no disturbances in either group. This simple method of vaporization is particularly indicated in the severe cases for which alone prophylactic sterilization is justifiable. A single application of the steam was sufficient in some instances, in others two were made. The temperature of the steam was 110-106 C., applied for one minute, nine days later the steam at 109-104 C. for two minutes. He treated his last patient with a single application at 115 C. for one minute.

110. Methylene Blue in Urinary Diagnosis.—Fischer extols the valuable information to be derived from ingestion of methylene blue in many cases. It renders the cystoscope pictures extremely distinct. A very small amount is sufficient, 0.1 gm. in a capsule internally or .05 gm. in an aqueous solution subcutaneously. No inconvenience has been observed from ingestion of as much as .25 gm. to .5 gm. The latter is the usual dose he employs, given about two hours before cystoscopy. In a recent case he had occasion to drain a tumor which simulated a pancreatic cyst, although the fluid issuing from it showed no characteristics of pancreatic secretions nor any odor of urine. Ingestion of a small amount of methylene blue stained it exactly the same tint as that of the urine, demonstrating its nature as a hydronephrosis.

111. Phototherapy After Sensibilization.—Halberstaedter denounces as incorrect our current discrimination of chemically active and chemically inactive rays of light. In photochemistry the law has long since been established that those rays alone exert a chemical action on a body which are absorbed by the body in question. He reverses this law and proclaims that all rays of the spectrum are chemically active when they are absorbed. The only difference between them is the power of absorption of the articles on which they fall. This power of absorption can be artificially created or magnified, as the photochemists have long known. He has been testing a number of the substances used in photochemistry to confirm Dreyer's announcements in regard to the enhanced action of phototherapy when the tissues have previously been sensitized with some substance. His conclusions corroborate those of Dreyer, who found that erythrosin is the most powerful substance for this purpose, for which also its harmlessness eminently adapts it.

116. Phlegmon After Injection of Adrenalin and Cocain.—Aronheim reports a case of extensive phlegmon which developed at the spot of injection of a mixture of adrenalin, cocain and saline, previous to amputation of a toe.

119. Malignant Edema.—Lotheissen remarks that the treatment of malignant edema and of gaseous gangrene should be the same although the two affections differ in many points. Excision into sound tissue is the rule when the process is still localized. In a case described, the application of hydrogen peroxid probably helped to limit the process during the two days that elapsed before the patient's consent to amputation could be obtained. The gangrene of the muscles already involved is not affected by this remedy, but the process remains localized to the spot, which is in itself a great gain. It should be applied energetically, continually dribbling the wound with it, possibly combined with subcutaneous injection. This case is the only one on record of bacteriologically confirmed malignant edema in which it was systematically applied, and even here not subcutaneously. Enucleation at the shoulder was done in this case and in time to remove the bacillary focus of the malignant edema. There is still suppuration in the wound, but merely a creamy pus such as accompanies staphylococcus processes, without indication of gangrene or edema. If the focus is located on the trunk the prognosis is bad, as the hydrogen peroxid is successful only when combined with amputation. The prognosis is also rendered graver by a debilitated condition. Only 8 recoveries are on record in 23 cases of gaseous gangrene reported of late and amputation had been performed in 6. The prognosis is not much better for malignant edema, and no recovery is known without amputation of the part affected. One died in the 4 cases he cites. A bacteriotherapy may prove possible and Tavel has succeeded in obtaining an experimental preventively effectual serum from immunized animals. Owing to the rarity of the disease it would be impracticable to keep a serum on hand and it would take too long to prepare one.

Wiener klinische Wochenschrift.

120 (XVII, No. 13.) Zur Metaplasie des Harnblasen Epithels (of bladder). R. Lichtenstern.
121 *Beitrag zur Nephrektomie und Diagnostik der Nieren-Tuberkulose. M. Hofmann (Graz).
122 Ueber cholesteatom-haltige Mamma-Adenome. O. Stoerk and J. Erdheim.
123 Industrial Anthrax. F. Berka (Brunn).—Zur gewerblichen Milzbrandinfektion.

121. Treatment of Tuberculosis of Kidney.—Hofmann's first patient recovered complete health after resection of the tuberculous right half of a horseshoe kidney. The second patient was also cured by extirpation of a tuberculous wandering kidney. The symptoms in this case had been attributed to the movability of the kidney and catarrh of the bladder, but the cystoscope revealed pus issuing from one ureter and the presence of small ecchymoses in the otherwise intact bladder mucosa. Pain when walking, subsiding when seated, was another symptom which had been referred to the wandering kidney.

Books Received.

AN AUTOBIOGRAPHY. By Herbert Spencer. Illustrated. In Two Volumes. Vols. I and II. Cloth. Pp. 654 and 613. Respectively. Price, $2.75 Per Volume. New York: D. Appleton & Co. 1904.

FIFTY-FIFTH ANNUAL REPORT OF THE BOARD OF TRUSTEES AND SUPERINTENDENT OF THE CENTRAL INDIANA HOSPITAL FOR INSANE for the Fiscal Year Ending Oct. 31, 1903. To the Governor. Paper. Pp. 109. Indianapolis: Wm. B. Burford. 1904.

A MANUAL OF FEVER NURSING. By Reynold Webb Wilcox, M.A., M.D., LL.D., Professor of Medicine in the New York Post-graduate Medical School and Hospital. Illustrated. Cloth. Pp 238. Price, $1.00. Philadelphia: P. Blakiston's Son & Co. 1904.

THE MEDICAL NEWS POCKET FORMULARY. By E. Quin Thornton, M.D., Assistant Professor of Materia Medica in the Jefferson Medical College, Philadelphia. New (sixth) Edition. Leather, Wallet Shape for the Pocket. $.150 net. Philadelphia and New York: Lea Brothers & Co. 1904.

TWENTY-SIXTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF CONNECTICUT for the Year 1903, with the Registration Report for 1903 Relating to Births, Marriages, Deaths and Divorces. Public Document No. 25. Cloth. Pp. 276. New Haven, Conn.: The Tuttle, Moorehouse & Taylor Co. 1904.

PEDIATRICS. Lea's Series of Medical Epitomes. A Manual for Students and Practitioners. By Henry Enos Tuley, A.B., M.D., Professor of Obstetrics in the Medical Department of Kentucky University, Louisville, Ky. Cloth. Pp. 266, with 33 Engravings. Price, $1.00 net. Philadelphia and New York: Lea Brothers & Co. 1903.

AN INTRODUCTION TO VERTEBRATE EMBRYOLOGY, Based on the Study of the Frog and the Chick. By Albert Moore Reese, Ph.D. (Johns Hopkins), Associate Professor of Histology in Syracuse University and Lecturer on Histology and Embryology in the College of Medicine. With 84 Illustrations. Cloth. Pp. 201. Price, $1.40. New York and London: G. P. Putnam's Sons. The Knickerbocker Press. 1904.